10690458

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=> d his

     (FILE 'HOME' ENTERED AT 10:29:55 ON 03 JUN 2004)

     FILE 'REGISTRY' ENTERED AT 10:30:08 ON 03 JUN 2004
L1                STRUCTURE UPLOADED
L2              0 S L1
L3                SCREEN 2040
L4                STRUCTURE UPLOADED
L5                QUE L4 AND L3
L6             24 S L4
L7            363 S L4 SSS FULL

     FILE 'CAPLUS' ENTERED AT 10:34:30 ON 03 JUN 2004
L8            154 S L7
L9              2 S L8 AND (CARBOXYLIC? OR CARBOXYLATE?)
L10             0 S L8 AND (MALATE OR SUCCINATE OR FUMARATE OR MALEATE OR GLYCOLA
L11            22 S L8 AND SALT?
L12            24 S L9 OR L11
                  S L3

     FILE 'REGISTRY' ENTERED AT 10:47:02 ON 03 JUN 2004

     FILE 'CAPLUS' ENTERED AT 10:47:08 ON 03 JUN 2004
L13            24 S L12 SUBSET=L4

     FILE 'REGISTRY' ENTERED AT 10:47:19 ON 03 JUN 2004
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L15             7 S L1 SSS FULL SUB=L7

     FILE 'CAPLUS' ENTERED AT 10:49:13 ON 03 JUN 2004

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L16            9 L15

=> s l16 not l13
L17            9 L16 NOT L13
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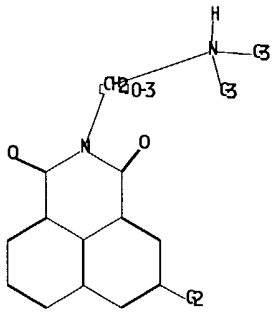

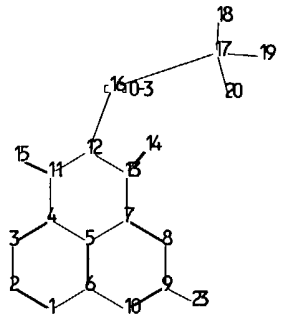

hain nodes :
14 15 16 17 18 19 20 23
ing nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
hain bonds :
9-23 11-15 12-16 13-14 16-17 17-18 17-19 17-20
ing bonds :
1-2 1-6 2-3 3-4 4-5 4-11 5-6 5-7 6-10 7-8 7-13 8-9 9-10 11-12 12-13
xact/norm bonds :
4-11 7-13 9-23 11-12 11-15 12-13 13-14 17-19 17-20
xact bonds :
12-16 16-17 17-18
ormalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
solated ring systems :
containing 1 :

2:O,S,N,X

3:H,CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu

atch level :
1:Atom 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:CLASS
23:CLASS

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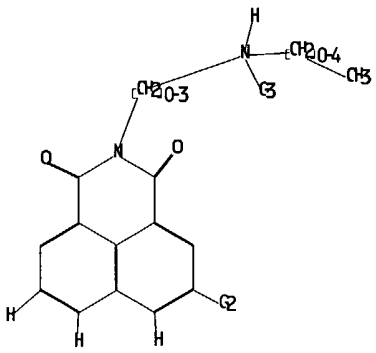

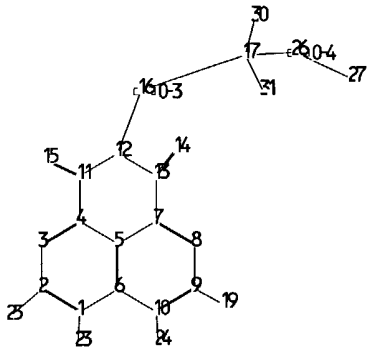

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 14 15 16 17 19 23 24 25 26 27 30 31
g nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13
in bonds :
 1-23 2-25 9-19 10-24 11-15 12-16 13-14 16-17 17-26 17-30 17-31 26-27
g bonds :
 1-2 1-6 2-3 3-4 4-5 4-11 5-6 5-7 6-10 7-8 7-13 8-9 9-10 11-12 12-13
ct/norm bonds :
 4-11 7-13 9-19 11-12 11-15 12-13 13-14 17-31
ct bonds :
 1-23 2-25 10-24 12-16 16-17 17-26 17-30 26-27
malized bonds :
 1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10
lated ring systems :
 containing 1 :

O,S,N,X

H,CH3,Et,n-Pr,n-Bu

ch level :
 1:Atom 2:CLASS 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
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 25:CLASS 26:CLASS 27:CLASS 30:CLASS 31:CLASS

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=> d his

     (FILE 'HOME' ENTERED AT 10:29:55 ON 03 JUN 2004)

     FILE 'REGISTRY' ENTERED AT 10:30:08 ON 03 JUN 2004
L1                STRUCTURE UPLOADED
L2              0 S L1
L3                SCREEN 2040
L4                STRUCTURE UPLOADED
L5                QUE L4 AND L3
L6             24 S L4
L7            363 S L4 SSS FULL

     FILE 'CAPLUS' ENTERED AT 10:34:30 ON 03 JUN 2004
L8            154 S L7
L9              2 S L8 AND (CARBOXYLIC? OR CARBOXYLATE?)
L10             0 S L8 AND (MALATE OR SUCCINATE OR FUMARATE OR MALEATE OR GLYCOLA
L11            22 S L8 AND SALT?
L12            24 S L9 OR L11

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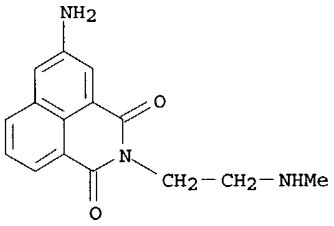
10690458

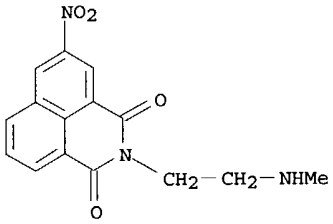
=> d 1-9 bib abs hitstr

L17 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:521512 CAPLUS
DN 125:157728
TI Clinical pharmacokinetics of amonafide (NSC 308847) in 62 patients
AU Kreis, W.; Chan, K.; Budman, D. R.; Allen, S. L.; Fusco, D.; Mittelman, A.; Freeman, J.; Hock, K.; Akerman, S.; et al.
CS North Shore University Hospital, Cornell University Medical College, Manhasset, NY, 11030, USA
SO Cancer Investigation (1996), 14(4), 320-327
CODEN: CINVD7; ISSN: 0735-7907
PB Dekker
DT Journal
LA English
AB Amonafide (A) demonstrates dose-related increases in area urea the curve (AUC) and Cmax values. Total body clearance for A (ranging from 44.2 to 53.8 L/h/m2) is relatively constant within the dosing range of this study. The dose-related increase of AUC was also observed for the 2 identified metabolites, acetylmonafide (AA) and noramonafide (NA). A and NA plasma data could be described by a four-compartmental model (two compartments for A, one compartment each for NA and AA). The fitting for NA was poor owing to its low plasma concentration The terminal half-lives for A, NA, and AA were in the range of 3-6 h. No cumulative accumulation of parent compound or metabolites was detected after daily administration. The concns. of A, NA, and AA 24 h after dosing were either below or very close to the quant. limits of the assay. Polymorphic disposition of A were confirmed by a frequency distribution of AUC value vs. dose plot.
IT **114991-16-1**
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(clin. pharmacokinetics of amonafide (NSC 308847) in 62 human patients)
RN 114991-16-1 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-amino-2-[2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)

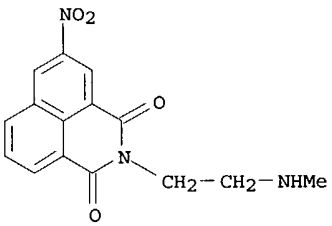


L17 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:143777 CAPLUS
DN 124:284087
TI Effect of mitonafide analogs on topoisomerase II of Leishmania chagasi
AU Slunt, Kelli Miller; Grace, James M.; Macdonald, Timothy L.; Pearson, Richard D.
CS Department Chemistry, University Virginia, Charlottesville, VA, 22901, USA
SO Antimicrobial Agents and Chemotherapy (1996), 40(3), 706-9
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB Mitonafide (4-nitrobenzoisoquinolinedione) and a number of structural analogs were examined to determine the structural requirements for inhibition of leishmanial nuclear and kinetoplast topoisomerase II and human topoisomerase II. The structure-activity relation studies with the mitonafide analogs demonstrated that there was selective targeting of leishmanial nuclear topoisomerase II and human topoisomerase II and differential targeting of kinetoplast over nuclear topoisomerase II in the parasite. Mitonafide analogs appeared to have multiple mechanisms of action leading to death of leishmanias, but several compds. that affected kinetoplast but not nuclear topoisomerase II were not cytotoxic as determined by short-term assays. These studies provide new insight into the differential sensitivities of leishmanial nuclear and kinetoplast topoisomerase II to topoisomerase II-targeting drugs.
IT **79070-62-5**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(structure activity relations of effects of mitonafide analogs on Leishmania chagasi nuclear and kinetoplast and human topoisomerase II)
RN 79070-62-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(methylamino)ethyl]-5-nitro- (9CI) (CA INDEX NAME)



L17 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:31682 CAPLUS
DN 122:234077
TI The stabilization of DNA topoisomerase II cleavable complex by mitonafide analogs
AU Miller, Kelli E.; Grace, James M.; Macdonald, Timothy L.
CS Dep. Chem., Univ. Virginia, Charlottesville, VA, 22901, USA
SO Bioorganic & Medicinal Chemistry Letters (1994), 4(13), 1643-5
CODEN: BMCLE8; ISSN: 0960-894X
DT Journal
LA English
AB Amonafide (4-aminobenzoisoquinolinedione) and its structural analog, mitonafide, have been shown to stabilize topoisomerase II cleavable complexes. The position of the nitro group and structural modifications of the side chain influence the interactions between drug, enzyme, and DNA. It was shown that the analogs with the nitro in the 5-position are the most potent inhibitors in this structural class.
IT **79070-62-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(mitonafide analog, as antitumor agent; stabilization of DNA topoisomerase II-DNA cleavable complex by mitonafide analogs)
RN 79070-62-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(methylamino)ethyl]-5-nitro- (9CI) (CA INDEX NAME)



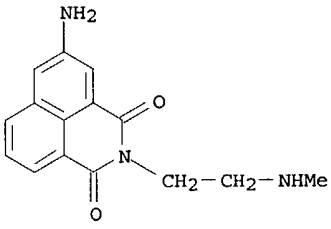
L17 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:462236 CAPLUS
DN 117:62236
TI Pharmacokinetic characterization of mitonafide in man
AU Brode, E.; Poveda Velasco, A.; Diaz-Rubio, E.; Rosell Costa, R.; Benavides Fissure, A.
CS Knoll AG, Ludwigshafen, Germany
SO Methods and Findings in Experimental and Clinical Pharmacology (1992), 14(2), 131-40
CODEN: MFEPDX; ISSN: 0379-0355
DT Journal
LA English
AB The pharmacokinetic behavior of mitonafide after i.v. administration (1 h

infusions) to patients (118-180 mg/m2) can be described by an open three compartment body model. The pharmacokinetic behavior of mitonafide after i.v. administration (1 h infusions) to patients (118-180 mg/m2) can be described by an open three compartment body model. Mitonafide distributes quasi-instantaneously in a central distribution volume of 102 L/m2 (median) from which it equilibrates with two peripheral compartments of 106 and 258 L/m2, resp. Mitonafide distributes quasi-instantaneously in a central distribution volume of 102 L/m2 (median) from which it equilibrates with two peripheral compartments of 106 and 258 L/m2, resp. Its disappearance from plasma is triexponential with half-lives of 0.28, 2.0 and 26.9 h, resulting in a clearance of 69 L/h/m2. Its disappearance from plasma is triexponential with half-lives of 0.28, 2.0 and 26.9 h, resulting in a clearance of 69 L/h/m2. This clearance is mainly due to the biotransformation of mitonafide leading among others to amonafide, N-acetylamonafide, and N-desmethylamonafide, which build up substantial concns. in plasma. This clearance is mainly due to the biotransformation of mitonafide leading among others to amonafide, N-acetylamonafide, and N-desmethylamonafide, which build up substantial concns. in plasma. Their quant. importance in terms of exposures (AUC) relative to the parent compound are 86, 197 and 28%, resp. Their quant. importance in terms of exposures (AUC) relative to the parent compound are 86, 197 and 28%, resp. Terminal elimination from plasma proceeds with half-lives of 34.3, 17.6 and 27.5 h.

IT **114991-16-1**, N-Desmethylamonafide
RL: BIOL (Biological study)
(as mitonafide metabolite, in humans)

RN 114991-16-1 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-amino-2-[2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)



L17 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:416531 CAPLUS

DN 109:16531

TI Pharmacokinetics of Amonafide in dogs

AU Lu, Katherine; McLean, M. A.; Vestal, M. L.; Newman, R. A.

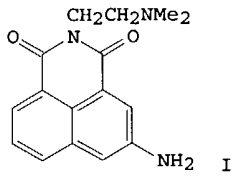
CS Dep. Chem., Univ. Houston, Houston, TX, USA

SO Cancer Chemotherapy and Pharmacology (1988), 21(2), 134-8
CODEN: CCPHDZ; ISSN: 0344-5704

DT Journal

LA English

GI



I

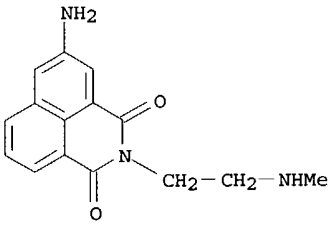
AB The pharmacokinetics of the antitumor drug Amonafide (I) was studied in dogs given 5 mg I/kg. The initial plasma half-life (t1/2) of Amonafide was 2.4 min, the intermediate t1/2 = 26.8 min, and the terminal t1/2 = 21.7 h. The peak plasma concentration achieved was 6.3 μg/mL. The average apparent volume of distribution was 12.84 L/kg, and the total clearance was 0.56 L/kg·h. About 9.5% of the dose was excreted in the urine in

24 h and 7.4% in the bile in 6 h unchanged. Amonafide penetrated readily into the cerebrospinal fluid and achieved there the highest concentration amounting .simeq.30% of the concurrent plasma levels 20-25 min after administration. Amonafide was metabolized into 3 major and at least 2 minor metabolites. The α and β plasma t1/2 of the main metabolite, an N-oxide, were 24.8 min and 28.6 h, resp. The cumulative urinary excretion was 1.4% of the injected dose in 24 h and the cumulative biliary excretion was 16.7% in 6 h. At 6 h after dosing, the liver contained the highest percentage of unchanged Amonafide (0.23% of administered dose), followed by the stomach (0.11%), lung (0.04%), kidney (0.04%), and pancreas (0.03%). The remaining major organs retained <0.02% of the dose. One day after dosing, no detectable amount of Amonafide was found in any of these tissues, indicating that Amonafide appears to be extensively metabolized and rapidly eliminated in the dog.

IT **114991-16-1**
RL: BIOL (Biological study)
(as Amonafide metabolite)

RN 114991-16-1 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-amino-2-[2-(methylamino)ethyl]- (9CI) (CA INDEX NAME)



L17 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:68234 CAPLUS

DN 108:68234

TI Pharmacokinetics and metabolism of the antitumor drug Amonafide (NSC-308847) in humans

AU Felder, T. B.; McLean, M. A.; Vestal, M. L.; Lu, K.; Farquhar, D.; Legha, S. S.; Shah, R.; Newman, R. A.

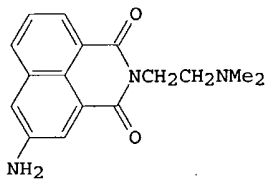
CS M. D. Anderson Hosp., Univ. Texas, Houston, TX, 77030, USA

SO Drug Metabolism and Disposition (1987), 15(6), 773-8
CODEN: DMDSAI; ISSN: 0090-9556

DT Journal

LA English

GI



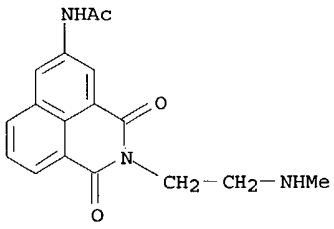
I

AB Pharmacokinetics and urinary excretion of Amonafide (I) were examined in patients who were administered 400 mg/m2 as a 30-min infusion on a daily schedule for 5 consecutive days. Amonafide was eliminated from plasma with a terminal half-life of 3.5 h. Renal excretion accounted for 23% of the administered dose. Pharmacokinetic parameters after the initial dose (day 1) were similar to those calculated after the 5th daily dose. Amonafide underwent metabolism, and 8 urinary metabolites were identified. Various N-acetylated species appeared to be the major metabolites, although no evidence of N-acetylation was found in urine obtained from 2 patients. Two of the primary metabolites, the N5-acetyl and N1-oxide metabolites, were tested in vitro for cytotoxicity against P388 murine leukemia cells. In this test system, the N-acetyl metabolite was only slightly less cytotoxic than the parent compound The N1-oxide, however, was inactive.

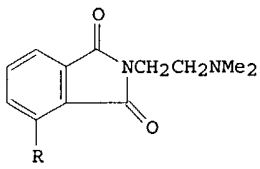
IT **112726-98-4**
RL: FORM (Formation, nonpreparative)

10690458

(formation of, as Amonafide metabolite, in humans)
RN 112726-98-4 CAPLUS
CN Acetamide, N-[2,3-dihydro-2-[2-(methylamino)ethyl]-1,3-dioxo-1H-benz[de]isoquinolin-5-yl]- (9CI) (CA INDEX NAME)



L17 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1985:487740 CAPLUS
DN 103:87740
TI N-(Aminoalkyl)imide antineoplastic agents. Synthesis and biological activity
AU Zee-Cheng, Robert K. Y.; Cheng, C. C.
CS Med. Cent., Univ. Kansas, Kansas City, KS, 66103, USA
SO Journal of Medicinal Chemistry (1985), 28(9), 1216-22
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
OS CASREACT 103:87740
GI



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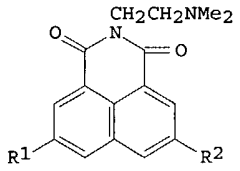
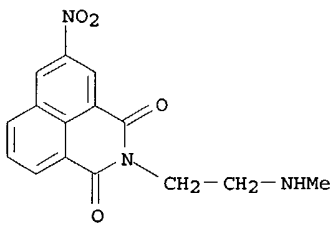


II

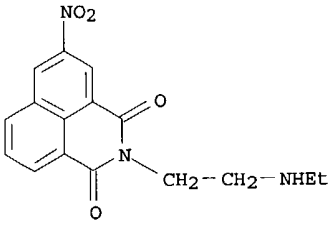
AB A wide variety of N-(aminoalkyl) substituted cyclic imides, e.g. I (R = H, NO2, Cl) and II (R1 = H, NO2, R2 = NO2, R1 = R2 = NH2) were prepared usually from the corresponding anhydrides and diamines. Preliminary biol. activity screening indicated N-(dialkylamino)imides of the 3,6-dinitro- and 3,6-diamino-1,8-naphthalic acid system possessed prominent antileukemic and antimelanoma activity in both in vitro and in vivo tumor systems.
IT **96807-41-9P 96807-42-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antineoplastic and cytotoxic activities of)
RN 96807-41-9 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(methylamino)ethyl]-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

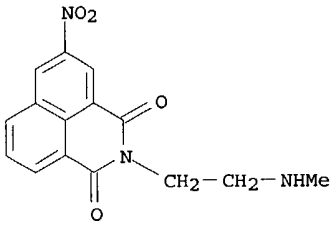
10690458

RN 96807-42-0 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(ethylamino)ethyl]-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)

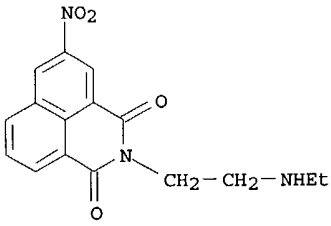


● HCl

IT **79070-62-5P 96807-69-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and antineoplastic and cytotoxic activity of)
RN 79070-62-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(methylamino)ethyl]-5-nitro- (9CI) (CA INDEX NAME)



RN 96807-69-1 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(ethylamino)ethyl]-5-nitro- (9CI) (CA INDEX NAME)



L17 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:532639 CAPLUS
DN 95:132639
TI Synthesis and cytostatic activity of benz[de]isoquinoline-1,3-diones. Structure-activity relationships
AU Brana, Miguel Fernandez; Sanz, Antonio Martinez; Castellano, Jose Maria; Roldan, Cristobal Martinez; Roldan, Cristina
CS Fac. Cienc. Quim., Univ. Complutense, Madrid, Spain
SO European Journal of Medicinal Chemistry (1981), 16(3), 207-12
CODEN: EJMCA5; ISSN: 0009-4374
DT Journal
LA English
OS CASREACT 95:132639
GI

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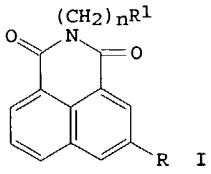


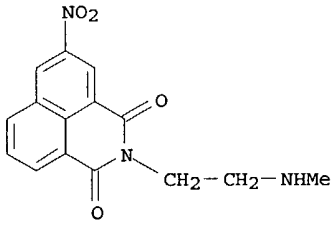
I

AB Fifty-one isoquinolinediones I (R = NO2, NH2, Cl, OH, NHCO2Et, MeO, NHAc, H, CMe3; R1 = NMe2, NEt2, pyrrolidino, piperidino, morpholino, 1-ethyl-3-piperidino, 4-methyl-1-piperazinyl, etc.) were prepared in 11-95% yield. Thus, reaction of 3-nitro-1,8-naphthalic anhydride and H2N(CH2)2NMe2 gave 64% I (R = NO2, R1 = NMe2, n = 2). The biol. activity was maximum (inhibiting the growth of HeLa cells) when n = 2. The presence of terminal N is essential for cytostatic activity. Substitution of polar atoms, e.g., S or O, decreased the cytotoxic activity.

IT **79070-62-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cytostatic activity of, structure in relation to)

RN 79070-62-5 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-(methylamino)ethyl]-5-nitro- (9CI) (CA INDEX NAME)



L17 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1977:89639 CAPLUS

DN 86:89639

TI Industrial manufacture of naphthalic anhydride derivatives

PA Laboratorios Made S. A., Spain

SO Span., 7 pp.
CODEN: SPXXAD

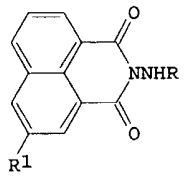
DT Patent

LA Spanish

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	ES 413419	A1	19760116	ES 1973-413419	19730406
PRAI	ES 1973-413419		19730406		

GI



I

AB Naphthalimides I (R = Me, Ph; R1 = H, NO3) were prepared by treating the naphthalic anhydrides with RNHNH2.

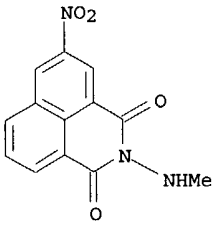
IT **61858-08-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 61858-08-0 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-(methylamino)-5-nitro- (9CI) (CA

10690458

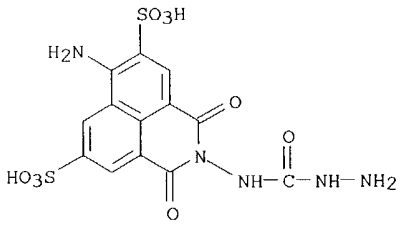
INDEX NAME)



10690458

=> d 1-24 bib abs hitstr

L12 ANSWER 1 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:640891 CAPLUS
DN 137:284846
TI Split-Pool Method for Synthesis of Solid-State Material Combinatorial Libraries
AU Sun, Yipeng; Chan, Benny C.; Ramnarayanan, Ramanathan; Leventry, Wendy M.; Mallouk, Thomas E.; Bare, Simon R.; Willis, Richard R.
CS Department of Chemistry, Pennsylvania State University, University Park, PA, 16802, USA
SO Journal of Combinatorial Chemistry (2002), 4(6), 569-575
CODEN: JCCHFF; ISSN: 1520-4766
PB American Chemical Society
DT Journal
LA English
AB The synthesis and anal. of inorg. material combinatorial libraries by the split-pool bead method were demonstrated at the proof-of-concept level. Millimeter-size spherical beads of porous γ-alumina, a commonly used support material for heterogeneous catalysts, were modified with Al13O4(OH)24(H2O)127+ cations in order to promote irreversible adsorption of the anionic fluorescent dyes Cascade Blue, Lucifer Yellow, and Sulforhodamine 101. The compns. of individual beads were easily determined through three split-pool cycles using a conventional fluorescence plate reader. Small split-pool material libraries were made by adsorbing noble metal **salts** (H2PtCl6, H2IrCl6, and RhCl3) into the beads. Anal. of these beads by micro-X-ray fluorescence showed that quant. adsorption of metal **salts** without cross-contamination of beads could be achieved at levels (0.3 weight% metal loading) relevant to heterogeneous catalysis. The method offers the potential for synthesis of rather large libraries of inorg. materials through relatively simple bench top split-pool chemical
IT **67769-47-5**, Lucifer Yellow CH
RL: CST (Combinatorial study, unclassified); PRP (Properties); CMBI (Combinatorial study)
(split-pool method for synthesis of solid-state material combinatorial libraries)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)



●2 Li

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:255163 CAPLUS
DN 133:116967
TI Design Consideration and Probes for Fluorescence Resonance Energy Transfer Studies
AU Sinev, Michael; Landsmann, Pavel; Sineva, Elena; Ittah, Varda; Haas, Elisha
CS Faculty of Life Sciences, Bar-Ilan University, Ramat Gan, 52900, Israel
SO Bioconjugate Chemistry (2000), 11(3), 352-362
CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English

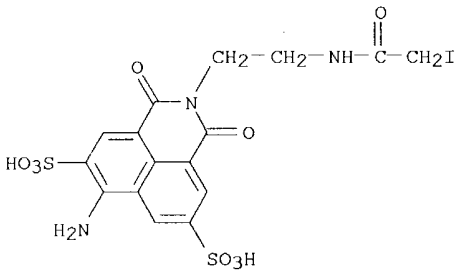
10690458

AB Spectroscopic properties of two newly synthesized water-soluble thiol-reactive fluorescent probes, 7-(iodoacetamido)-coumarin-4-**carboxylic** acid (I-Cca) and N-iodoacetyl-β-(2-naphthyl)alanine (I-Nal), were characterized using single cysteine mutants of Escherichia coli adenylate kinase. Together with two known water-soluble thiol-reactive dyes (Lucifer yellow iodoacetamide and 5-iodoacetamidosalicylic acid) and as well, tryptophan residues (either native or inserted into a protein by site directed mutagenesis), these probes can be arranged pairwise in a mol. tool set for studies of structural transitions in proteins by means of fluorescence resonance energy-transfer (FRET) expts. A set of seven donor/acceptor pairs which allow determination of intramol. distances and their distributions over the range 10-40 Å in labeled protein derivs. is described. The charged groups present in the probes facilitate the conjugation reaction and improve postlabeling purification General considerations for design of charged probes and site-directed labeling for applications of FRET methods in studies of protein structure and dynamics are presented.

IT **194553-12-3**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
(design consideration and probes for fluorescence resonance energy transfer studies)

RN 194553-12-3 CAPLUS

CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2,3-dihydro-2-[2-[(iodoacetyl)amino]ethyl]-1,3-dioxo- (9CI) (CA INDEX NAME)



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:34858 CAPLUS
DN 132:93221
TI Preparation of naphthalimidobenzamide derivatives as antitumor agents
IN Noguchi, Kazuharu; Wakida, Motoji; Suzuki, Kenji; Yamada, Yuji; Asao, Tetsuji
PA Taiho Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000001672	A1	20000113	WO 1999-JP3574	19990702
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2300069	AA	20000113	CA 1999-2300069	19990702
	AU 9943963	A1	20000124	AU 1999-43963	19990702
	AU 727591	B2	20001214		
	EP 1020446	A1	20000719	EP 1999-926895	19990702
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 3357662	B2	20021216	JP 2000-558077	19990702
	US 6300331	B1	20011009	US 2000-508044	20000303
PRAI	JP 1998-189078	A	19980703		
	WO 1999-JP3574	W	19990702		

OS MARPAT 132:93221
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 2-(3-Carbamoylphenyl)-1H-benz[de]isoquinoline-1,3(2H)-dione derivs. represented by general formula (I) or **salts** thereof (wherein R1 is hydrogen,NO2, OH, NH2, halo, cyano, CO2H, CONH2, ureido, alkyl, trihaloalkyl, alkoxy, etc.; Y is hydrogen or -CON(R4)-A2-X2; R2 and R4 are each independently hydrogen or alkyl; A1 and A2 are each independently linear or branched alkylene which may be interrupted by N(R3), O, S, CONH, NHCO, S(O), or SO2 (wherein R3 is hydrogen or the like); X1 is optionally substituted aryl, heteroaryl, aryldicarbonylimino, heteroaryldicarbonylimino, arylamino, heteroarylamino, arylcarbonylamino, etc.; and X2 is H, optionally substituted aryl, heterocyclyl, aryldicarbonylimino, heteroaryldicarbonylimino, arylamino, heteroarylamino, arylcarbamoyl, etc.; m = 1-3), which exhibit high affinity for DNA, are prepared Thus, a suspension of 711 mg 1-[N-[2-[(2-aminoethyl)amino]ethyl]carbamoyl]-3-(3-nitro-1,8-naphthalimido)-5-[N-(2-piperidinoethyl)carbamoyl]benzene hydrochloride, 0.5 mL Et3N, and 243 mg 3-nitro-1,8-naphthalic anhydride in 4 mL DMF was stirred at 60° for 30 min to give 72.2% title compound (II.HCl). II.HCl in vivo inhibited the proliferation of human melanoma LOX, human pancreatic cancer PAN, human breast cancer MX1, and human stomach cancer AZ521 cells transplanted s.c. in nude mice by 96.2, 59.8, 71.8, and 79.5%, resp.

IT **254451-72-4P 254451-75-7P 254451-81-5P**
254451-82-6P 254451-83-7P 254451-84-8P
254451-86-0P 254451-87-1P 254451-88-2P
254451-89-3P 254451-90-6P 254452-05-6P
254452-06-7P 254452-07-8P 254452-08-9P
254452-09-0P 254452-10-3P 254452-11-4P
254452-12-5P 254452-13-6P 254452-14-7P
254452-15-8P 254452-16-9P 254452-17-0P
254452-18-1P 254452-19-2P 254452-21-6P
254452-22-7P 254452-23-8P 254452-27-2P
254452-28-3P 254452-29-4P 254452-30-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of naphthalimidobenzamide derivs. as antitumor agents)

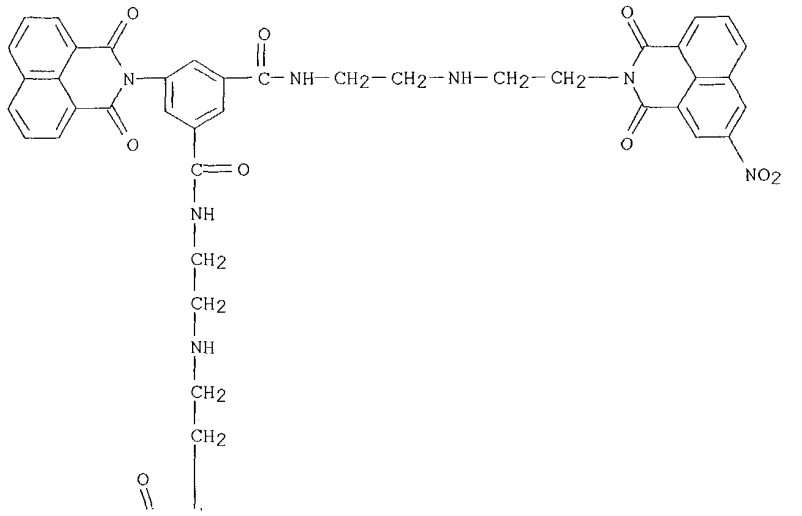
RN 254451-72-4 CAPLUS

CN 1,3-Benzenedicarboxamide, 5-(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N,N'-bis[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dimethanesulfonate (9CI) (CA INDEX NAME)

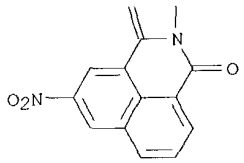
CM 1

CRN 254451-71-3
CMF C52 H39 N9 O12

PAGE 1-A

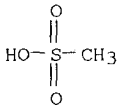


PAGE 2-A



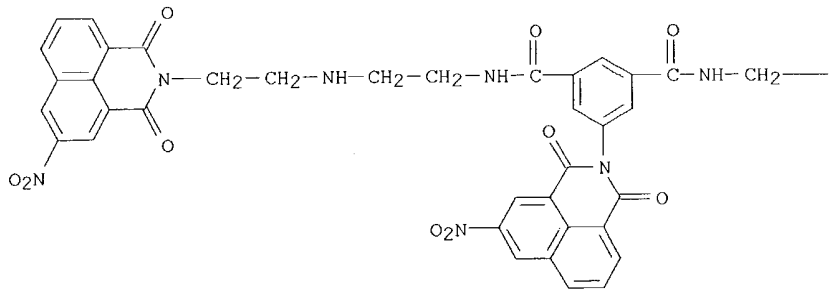
CM 2

CRN 75-75-2
CMF C H4 O3 S



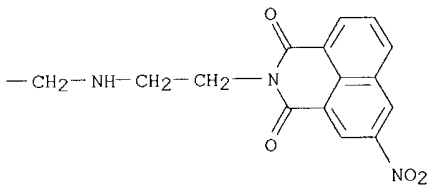
RN 254451-75-7 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N,N'-bis[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



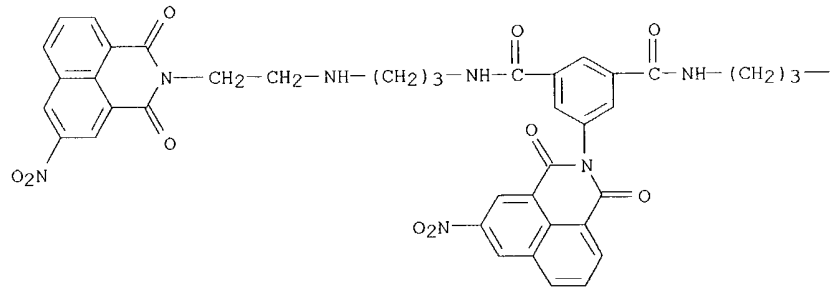
●2 HCl

PAGE 1-B



RN 254451-81-5 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N,N'-bis[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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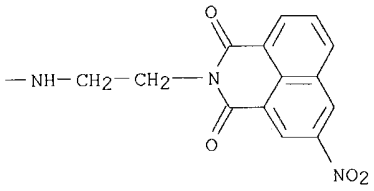
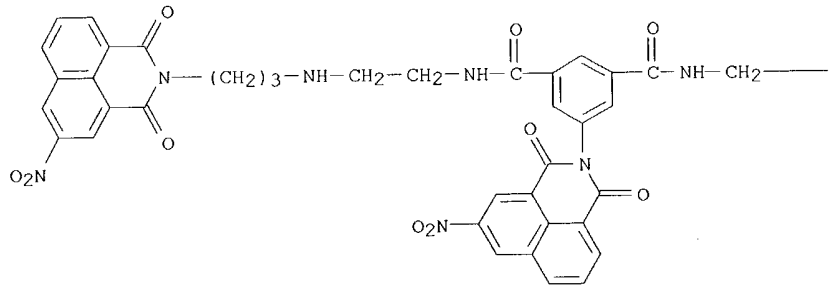
PAGE 1-B



RN 254451-82-6 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N,N'-bis[2-[[3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)propyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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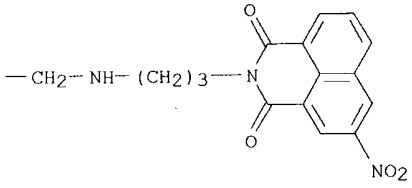
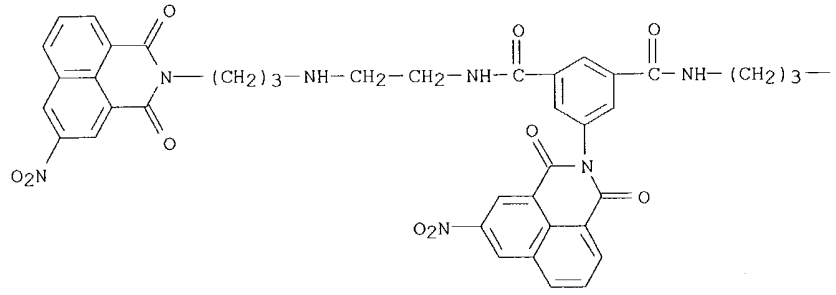
PAGE 1-B



RN 254451-83-7 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]-N'-[2-[[3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)propyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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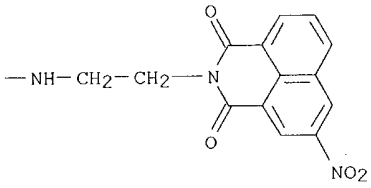
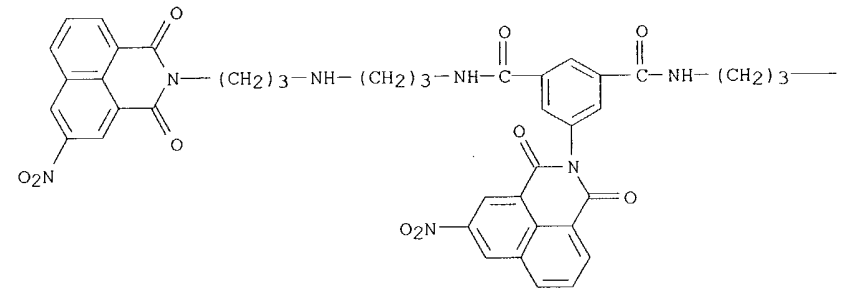
PAGE 1-B



RN 254451-84-8 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N,N'-bis[3-[[3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)propyl]amino]propyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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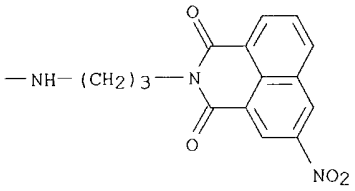
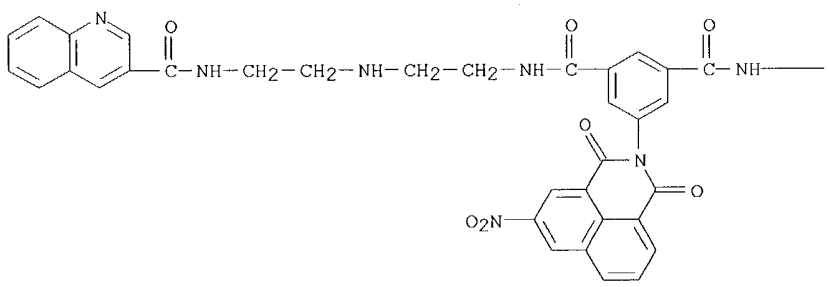
PAGE 1-B



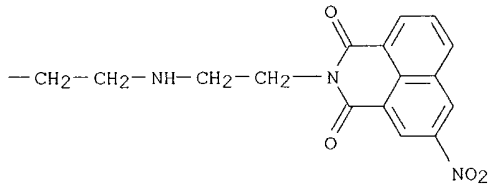
RN 254451-86-0 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-N'-[2-[[2-[(3-quinolinylcarbonyl)amino]ethyl]amino]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



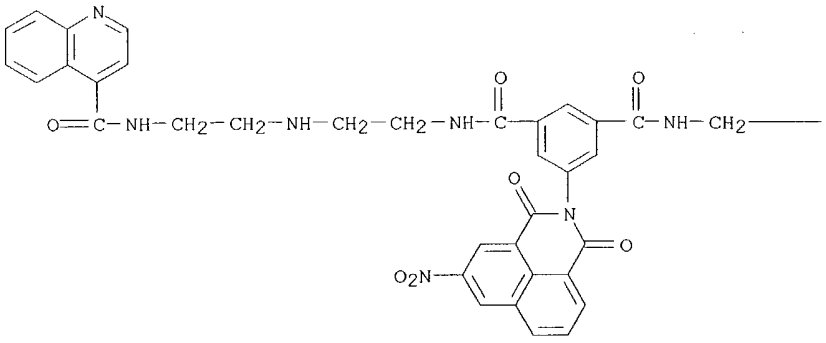
● 3 HCl

PAGE 1-B



RN 254451-87-1 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-N'-[2-[[2-[(4-quinolinylcarbonyl)amino]ethyl]amino]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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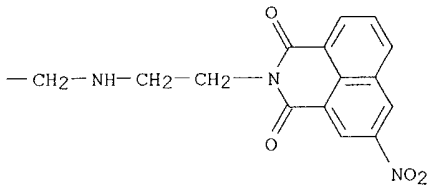
PAGE 1-B



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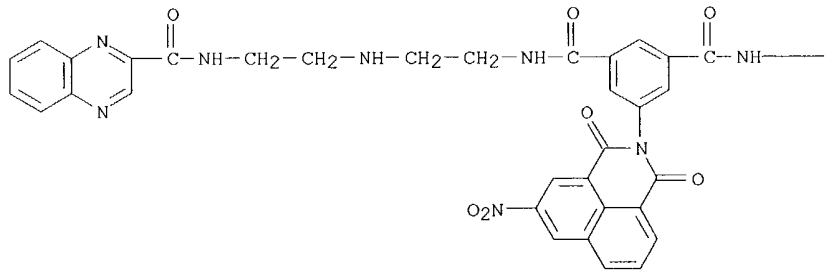
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-N'-[2-[[2-[(2-quinoxalinylcarbonyl)amino]ethyl]amino]ethyl]-, trihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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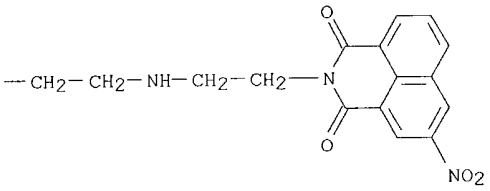
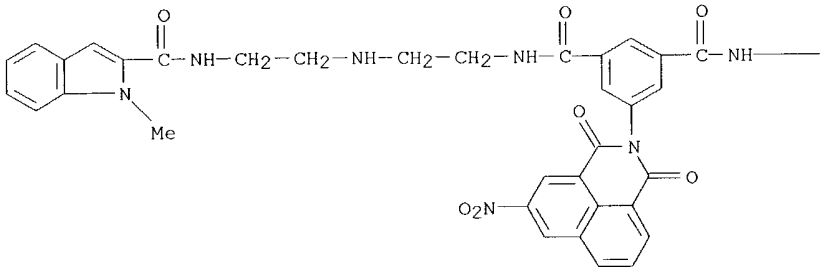
PAGE 1-B



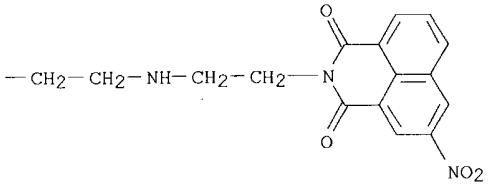
RN 254451-89-3 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[2-[[2-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]ethyl]amino]ethyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



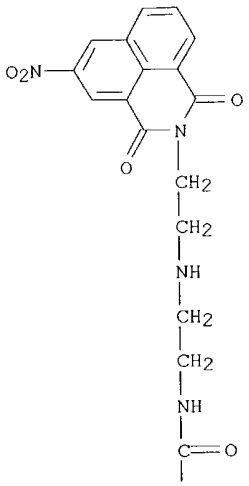
●2 HCl

PAGE 1-B

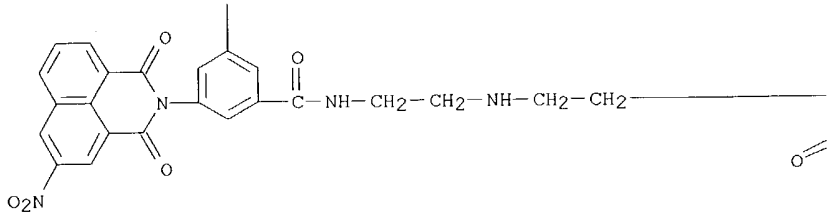


RN 254451-90-6 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[2-[[2-(1,3-dihydro-1,3-dioxo-2H-benz[f]isoindol-2-yl)ethyl]amino]ethyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A

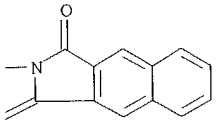


PAGE 2-A



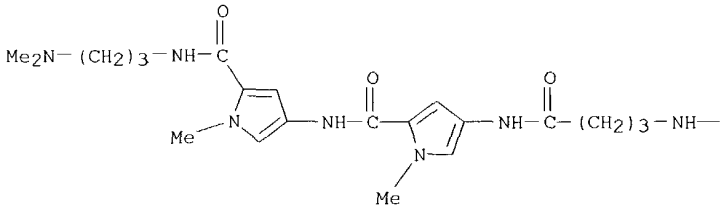
●2 HCl

PAGE 2-B



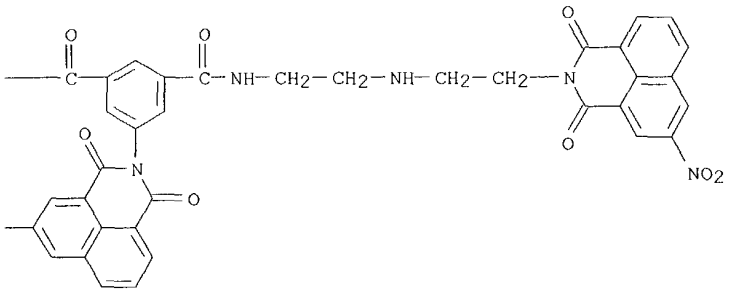
RN 254452-05-6 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[4-[[5-[[[5-[[[3-(dimethylamino)propyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



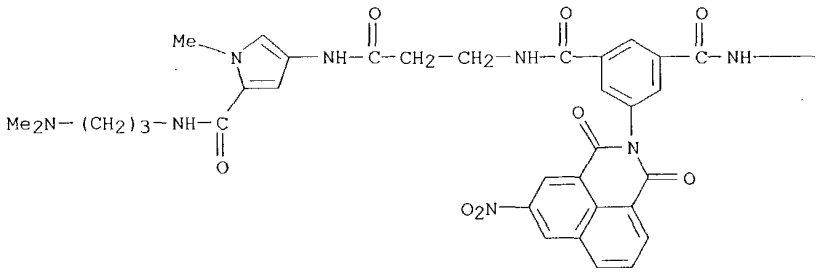
●2 HCl

PAGE 1-B



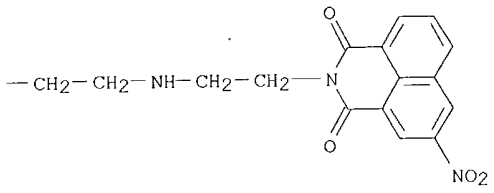
RN 254452-06-7 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[3-[[5-[[[3-(dimethylamino)propyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-3-oxopropyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



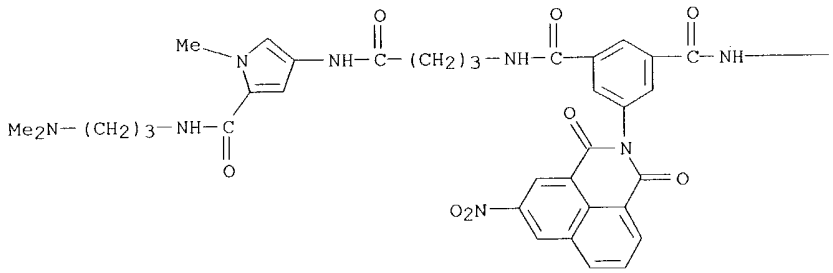
●2 HCl

PAGE 1-B



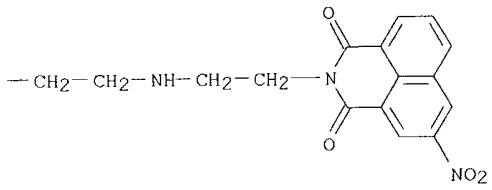
RN 254452-07-8 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[4-[[5-[[[3-(dimethylamino)propyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



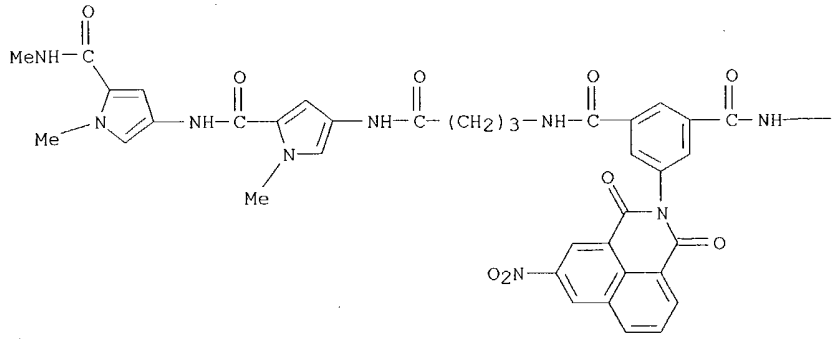
● 2 HCl

PAGE 1-B



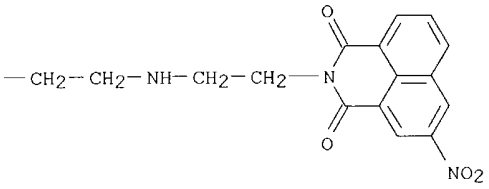
RN 254452-08-9 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[4-[[1-methyl-5-[[[1-methyl-5-[(methylamino)carbonyl]-1H-pyrrol-3-yl]amino]carbonyl]-1H-pyrrol-3-yl]amino]-4-oxobutyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



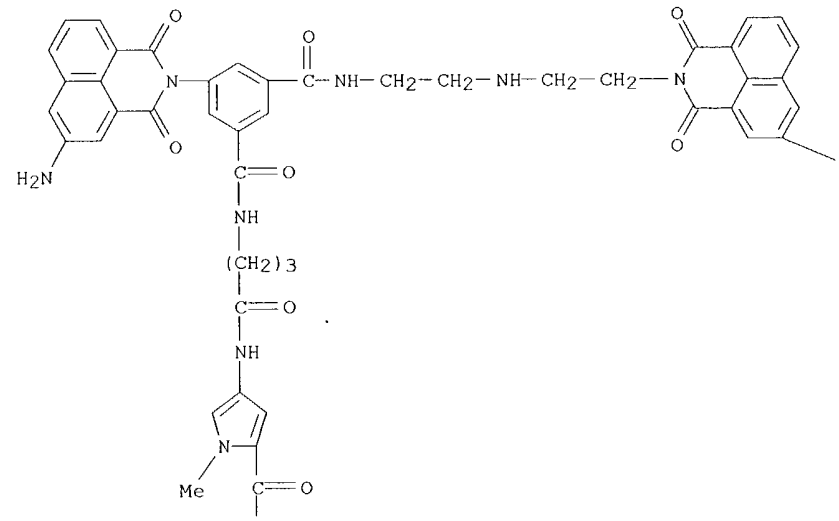
● HCl

PAGE 1-B

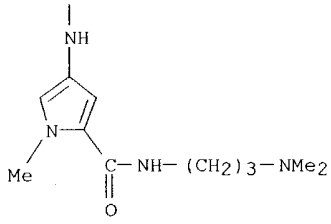


RN 254452-09-0 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-amino-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[4-[[5-[[[5-[[[3-(dimethylamino)propyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]amino]-4-oxobutyl]-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

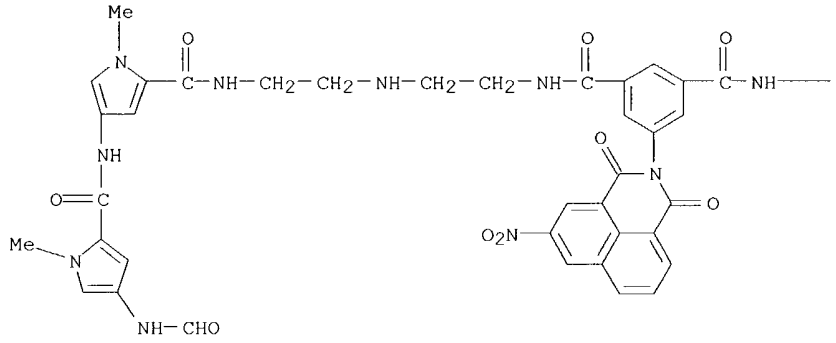


●2 HCl

RN 254452-10-3 CAPLUS

CN 1,3-Benzenedicarboxamide, N-[2-[[2-[[[4-[[[4-(formylamino)-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]-1-methyl-1H-pyrrol-2-yl]carbonyl]amino]ethyl]amino]ethyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



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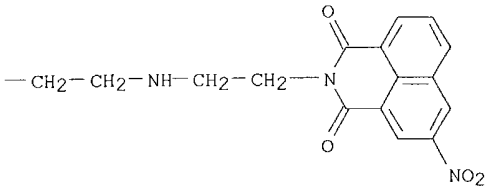
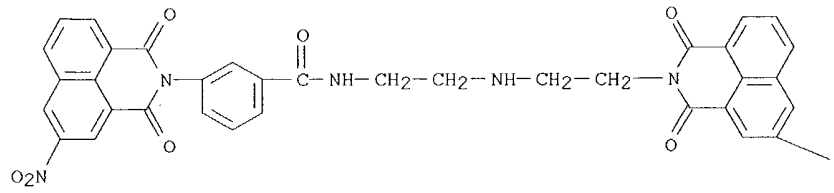
PAGE 1-B



RN 254452-11-4 CAPLUS
CN Benzamide, 3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



● HCl

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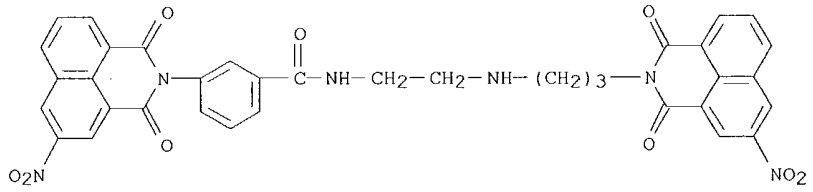
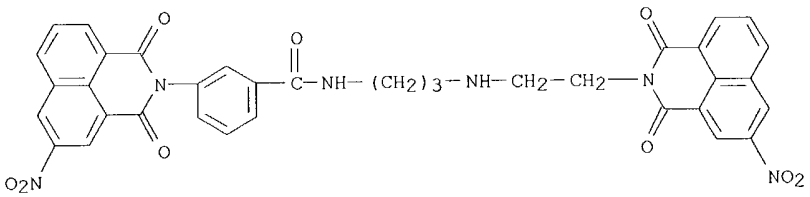
RN 254452-12-5 CAPLUS
CN Benzamide, 3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)propyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

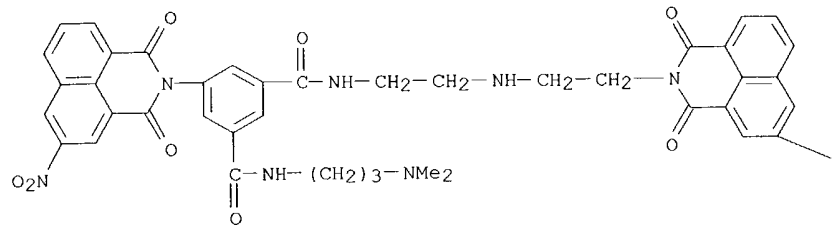
RN 254452-13-6 CAPLUS
CN Benzamide, 3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 254452-14-7 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[3-(dimethylamino)propyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



● HCl

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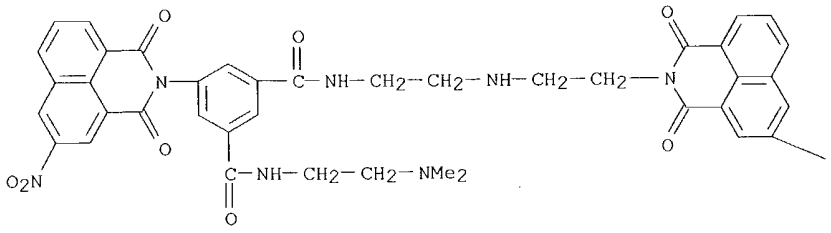
RN 254452-15-8 CAPLUS
CN 1,3-Benzenedicarboxamide, N-[2-(dimethylamino)ethyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



● HCl

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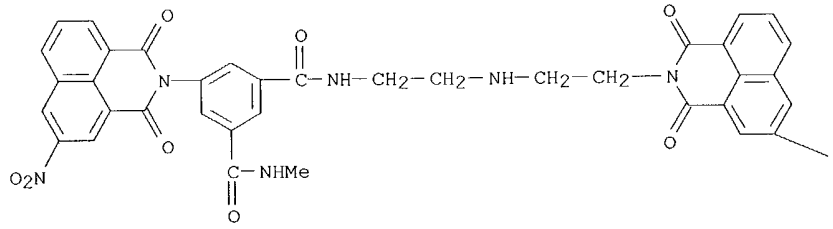
RN 254452-16-9 CAPLUS
CN 1,3-Benzenedicarboxamide, N-methyl-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



● HCl

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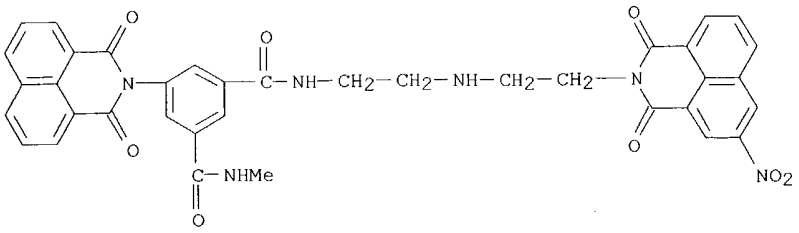
RN 254452-17-0 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-methyl-N'-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 254452-18-1 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-N'-[2-(1-pyrrolidinyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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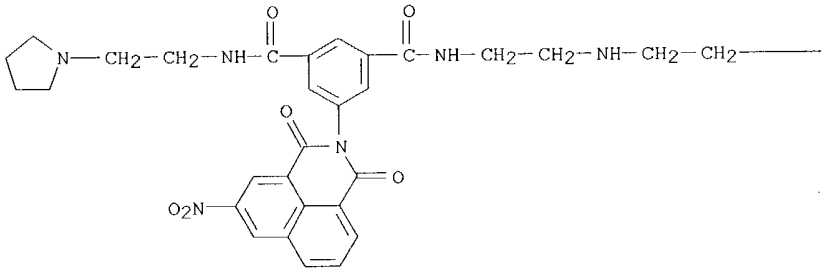

● HCl

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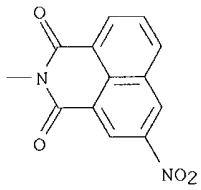

RN 254452-19-2 CAPLUS
CN 1,3-Benzenedicarboxamide, 5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-N'-[2-(1-piperidinyl)ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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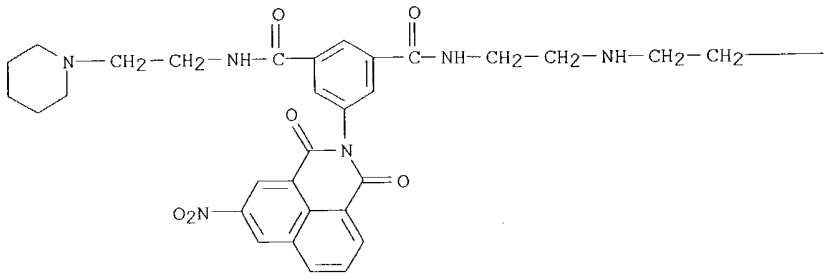

● HCl

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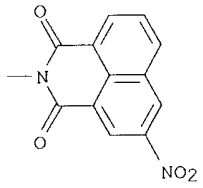
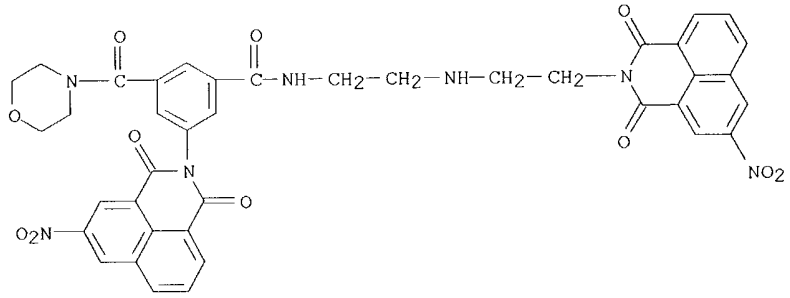


RN 254452-21-6 CAPLUS
CN Benzamide, 3-(4-morpholinylcarbonyl)-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 254452-22-7 CAPLUS
CN Benzamide, 3-[(4-methyl-1-piperazinyl)carbonyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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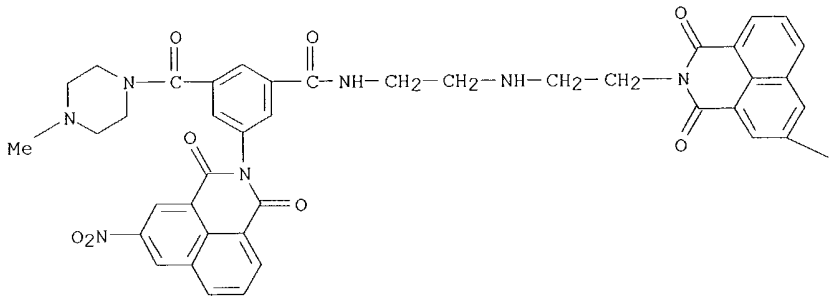

● HCl

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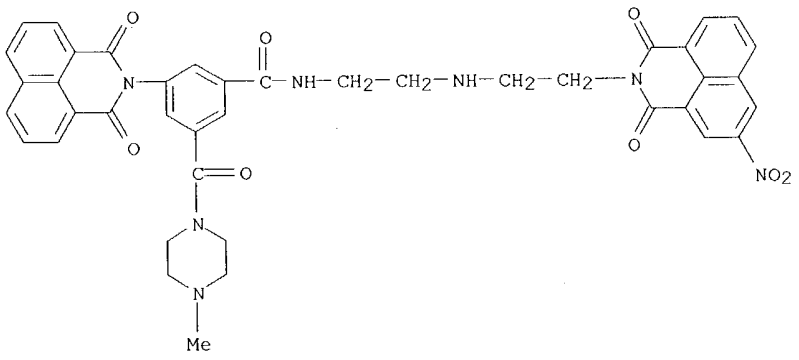
RN 254452-23-8 CAPLUS
CN Benzamide, 3-(1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-5-[(4-methyl-1-piperazinyl)carbonyl]-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



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RN 254452-27-2 CAPLUS
CN Benzamide, 3-(6-chloro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-5-[(4-ethyl-1-piperazinyl)carbonyl]-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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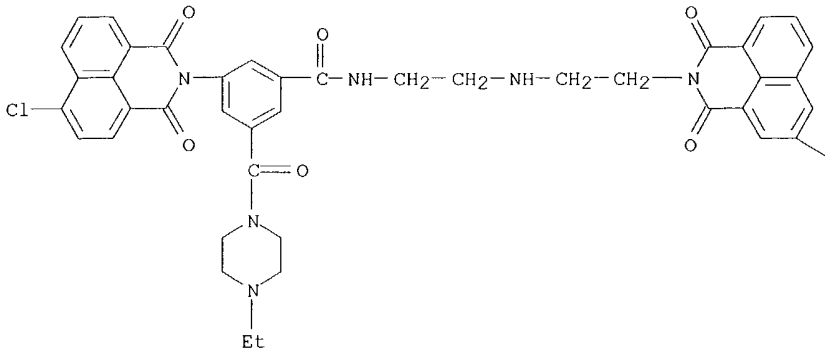

● HCl

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RN 254452-28-3 CAPLUS
CN Benzamide, 3-([1,4'-bipiperidin]-1'-ylcarbonyl)-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

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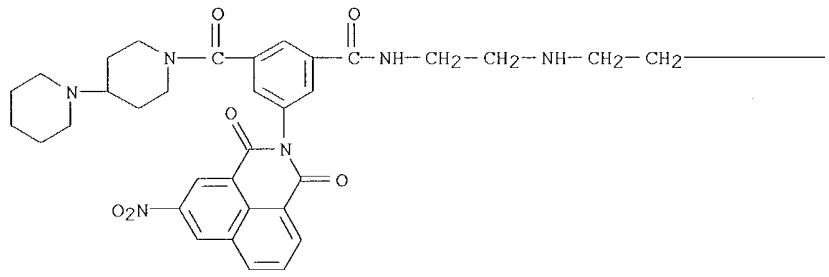
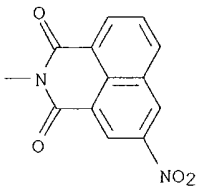
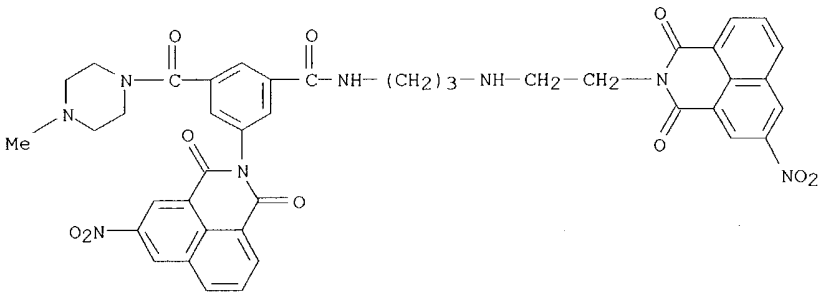


● HCl

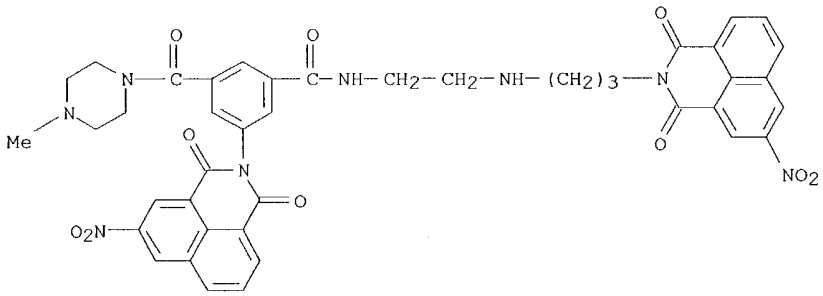


RN 254452-29-4 CAPLUS
CN Benzamide, 3-[(4-methyl-1-piperazinyl)carbonyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

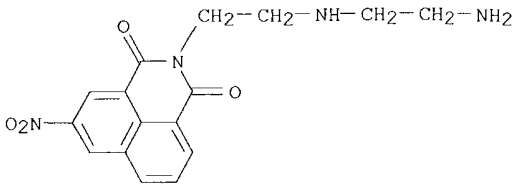
RN 254452-30-7 CAPLUS
CN Benzamide, 3-[(4-methyl-1-piperazinyl)carbonyl]-5-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)-N-[2-[[3-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)propyl]amino]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

IT **254452-33-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of naphthalimidobenzamide derivs. as antitumor agents)
RN 254452-33-0 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-[(2-aminoethyl)amino]ethyl]-5-nitro-, dihydrochloride (9CI) (CA INDEX NAME)

10690458

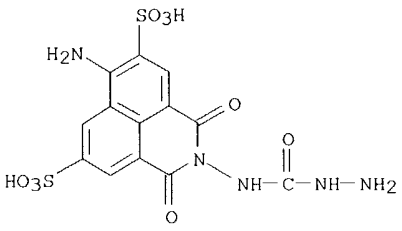


●2 HCl

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:607451 CAPLUS
DN 131:317025
TI Fine Chemical Manipulations of Microscopic Liquid Samples. 2. Consuming and Nonconsuming Schemes
AU Lu, Hongwen; Matsumoto, Takashi; Gratzl, Miklos
CS Department of Biomedical Engineering and Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH, 44106, USA
SO Analytical Chemistry (1999), 71(21), 4896-4902
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB Microscopic liquid particles can be manipulated chemical using a suitable diffusional microburet (DMB), whose tiny tip plugged with a diffusion membrane acts as a well-defined diffusional transfer channel. In part 1 of this work (Gratzl et al. Anal. Chemical 1999, 71, 2751-2756), the authors discussed the simplest DMB-based operation: addition, i.e., loading a droplet with a chemical that accumulates there without any chemical reaction occurring. Since in this process no consumption of the delivered mols. in the target droplet takes place, addition is a nonconsuming scheme. Another type of nonconsuming scheme is explored, which is the subtraction of a substance from droplets via a DMB. This process has no analogy among macroscopic chemical operations. Both addition and subtraction occur according to an exponential asymptotic process when diffusion is at quasi-steady state inside the DMB tip. These nonconsuming operations were characterized using the transport of microscopic quantities of Lucifer Yellow CH, a fluorescent dye, under a fluorescent microscope. The 3rd basic type of chemical manipulation is when the substance delivered by a DMB is consumed in the target droplet instantaneously by a fast chemical reaction. This consuming scheme was studied by delivering EDTA into droplets containing Pb2+ ions and a color indicator. These microscopic titrns. were monitored using gray scale transmittance images of the droplets as recorded vs. time. A unified theory of the three basic DMB operations is also presented.
IT **67769-47-5**, Lucifer Yellow CH
RL: ARU (Analytical role, unclassified); REM (Removal or disposal); ANST (Analytical study); PROC (Process)
(subtraction of Lucifer Yellow CH from microscopic droplets via diffusional microburet)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

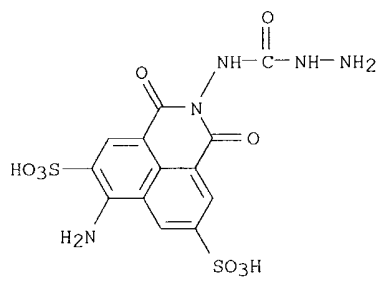
10690458



●2 Li

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:5972 CAPLUS
DN 130:206930
TI Pairs of violet-light-excited fluorochromes for flow cytometric analysis
AU Anderson, M. T.; Baumgarth, N.; Haugland, R. P.; Gerstein, R. M.; Tjioe, T.; Herzenberg, L. A.; Herzenberg, L. A.
CS Department of Genetics, Stanford University School of Medicine, Stanford, CA, 94305-5318, USA
SO Cytometry (1998), 33(4), 435-444
CODEN: CYTODQ; ISSN: 0196-4763
PB Wiley-Liss, Inc.
DT Journal
LA English
AB We describe pairs of fluorochromes for use with the 407-nm line of a violet-light-enhanced krypton ion laser. These fluorochromes and a previously described violet-light-excited reporter variant, GFP-Vex, fall into two emission classes: blue for Cascade Blue, and green/yellow for Cascade Yellow, Lucifer Yellow, and GFP-Vex. Cascade Yellow is a new fluorochrome that we have synthesized and is used for the first time in the present study. The two emission classes are sufficiently different that Cascade Blue can be paired with Cascade Yellow, Lucifer Yellow, or GFP-Vex in flow cytometric anal. Furthermore, with proper detection filters, these fluorochromes can be combined with all of the currently used fluorochromes in a three-laser FACS system. With these data, the total number of fluorochromes that can be used as antibody labels for simultaneous detection in combined FACS anal. increases to nine. This study demonstrates the sensitivity and power of the combined use of these reagents in a single eight-color anal. by identifying murine T-lymphocyte subsets that could not otherwise be readily distinguished.
IT **188904-20-3**, Lucifer Yellow CH ammonium **salt**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Lucifer Yellow; use of violet-light-excited fluorochromes for flow cytometry anal. for antibody labels for detection in combined flow cytometry anal.)
RN 188904-20-3 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, diammonium salt (9CI) (CA INDEX NAME)



●2 NH_3

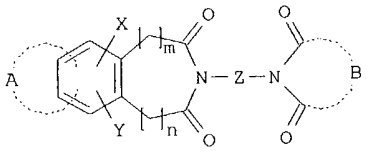
10690458

RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:133613 CAPLUS
DN 128:153998
TI Preparation of bis(imide) derivatives and their pharmaceutical compositions which are useful as anticancer agents
IN Lavielle, Gilbert; Hautefaye, Patrick; Atassi, Ghanem; Pierre, Alain; Kraus-Berthier, Laurence; Leonce, Stephanie
PA Adir et Compagnie, Fr.
SO Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 820985	A1	19980128	EP 1997-401790	19970724
	EP 820985	B1	20000830		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2751655	A1	19980130	FR 1996-9417	19960726
	FR 2751655	B1	19980828		
	US 5854273	A	19981229	US 1997-899289	19970723
	AU 9730173	A1	19980205	AU 1997-30173	19970724
	AU 714805	B2	20000113		
	AT 195936	E	20000915	AT 1997-401790	19970724
	ES 2150746	T3	20001201	ES 1997-401790	19970724
	PT 820985	T	20001229	PT 1997-401790	19970724
	CA 2213054	AA	19980126	CA 1997-2213054	19970725
	CA 2213054	C	20030527		
	NO 9703442	A	19980127	NO 1997-3442	19970725
	ZA 9706659	A	19980223	ZA 1997-6659	19970725
	JP 10067750	A2	19980310	JP 1997-199529	19970725
	CN 1182086	A	19980520	CN 1997-104673	19970725
	BR 9704113	A	19990518	BR 1997-4113	19970728
	US 6162822	A	20001219	US 1998-221904	19981228
	US 6300340	B1	20011009	US 2000-616857	20000714
	GR 3034748	T3	20010228	GR 2000-402436	20001102
PRAI	FR 1996-9417	A	19960726		
	US 1997-899289	A3	19970723		
	US 1998-221904	A3	19981228		

OS CASREACT 128:153998; MARPAT 128:153998
GI



I

AB Disclosed are bis(imide) derivs. I [m, n = 0 or 1; X, Y = H, halo, linear or branched C1-C6 alkyl, trihaloalkyl, or alkoxy, OH, -CN, NO2, NH2, alkylamino, dialkylamino; Z = linear or branched C4-C12 alkylene where one or more -CH2- may be replaced by -NR- (R = H or alkyl), O, S, SO2, CONH, (un)substituted heterocycle; A with two carbons of benzo group forms (un)substituted Ph, naphthyl, tetrahydronaphthyl, 1,4-dioxo-1,2,3,4-tetrahydronaphthyl, etc.] and their pharmaceutically acceptable **salts** which are useful as anticancer agents. Also disclosed is the preparation of I from reaction of cyclic anhydrides II with diamines H2N-Z-NH2. Thus, reaction of 10-methoxy-2-oxacyclopenta[c]phenanthrene-1,3-dione (preparation given) with N-1-[2-(2-aminoethylamino)ethyl]ethane-1,2-diamine in refluxing toluene afforded, after workup, N,N'-bis[2-(2-aza-1,3-dioxo-10-methoxycyclopenta[c]phenanthrene-2-yl)ethyl]ethane-1,2-diamine bis(methanesulfonate). This compound exhibited antitumor activity against KB-3-1 human epidermal carcinoma grafted in Nude mice. Pharmaceutical compns. containing I are claimed (1 example).

IT **202597-89-5P**

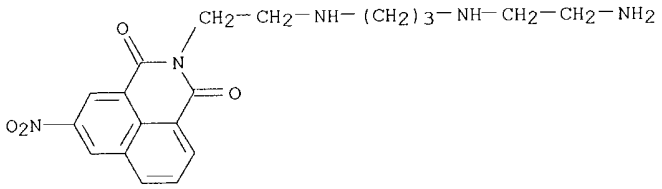
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(for preparation of cyclic bis(imide) derivs. as anticancer agents)

RN 202597-89-5 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-[[3-[(2-aminoethyl)amino]propyl]amino]ethyl]-5-nitro-, trimethanesulfonate (9CI) (CA INDEX NAME)

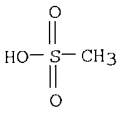
CM 1

CRN 202597-88-4
CMF C19 H23 N5 O4



CM 2

CRN 75-75-2
CMF C H4 O3 S

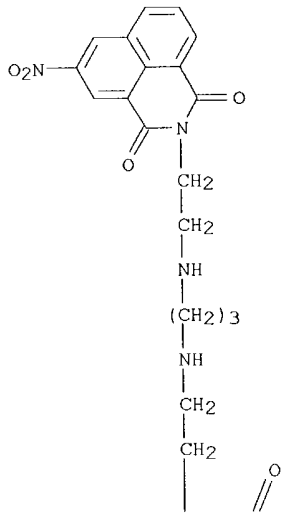


IT **202597-08-8P 202597-09-9P 202597-10-2P**
202597-11-3P 202597-36-2P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyclic bis(imide) derivs. as anticancer agents)

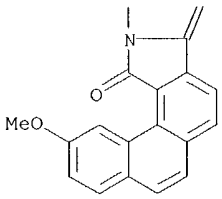
RN 202597-08-8 CAPLUS

CN 1H-Naphth[1,2-e]isoindole-1,3(2H)-dione, 10-methoxy-2-[2-[[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]amino]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

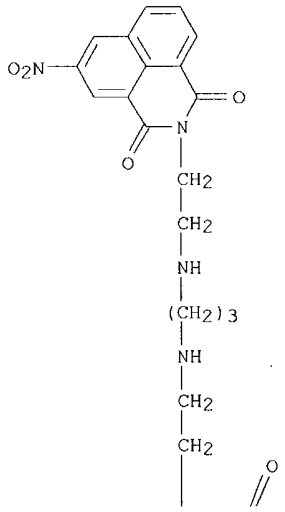


RN 202597-09-9 CAPLUS
CN 1H-Naphth[1,2-e]isoindole-1,3(2H)-dione, 10-methoxy-2-[2-[[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]amino]ethyl]-, dimethanesulfonate (9CI) (CA INDEX NAME)

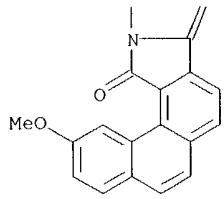
CM 1

CRN 202597-08-8
CMF C36 H31 N5 O7

PAGE 1-A

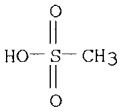


PAGE 2-A



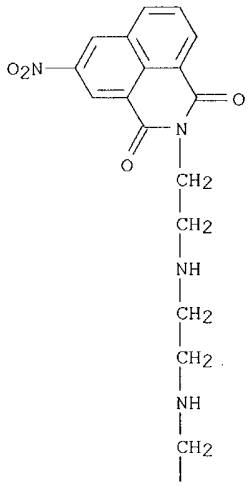
CM 2

CRN 75-75-2
CMF C H4 O3 S

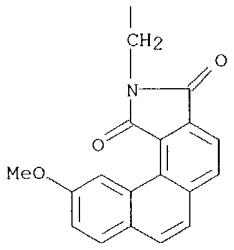


RN 202597-10-2 CAPLUS
CN 1H-Naphth[1,2-e]isoindole-1,3(2H)-dione, 10-methoxy-2-[2-[[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]amino]ethyl]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

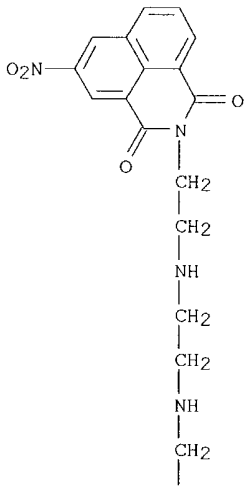


RN 202597-11-3 CAPLUS
CN 1H-Naphth[1,2-e]isoindole-1,3(2H)-dione, 10-methoxy-2-[2-[[2-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]ethyl]amino]ethyl]-, dimethanesulfonate (9CI) (CA INDEX NAME)

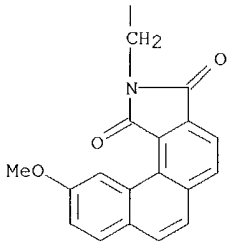
CM 1

CRN 202597-10-2
CMF C35 H29 N5 O7

PAGE 1-A

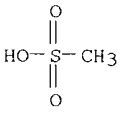


PAGE 2-A



CM 2

CRN 75-75-2
CMF C H4 O3 S

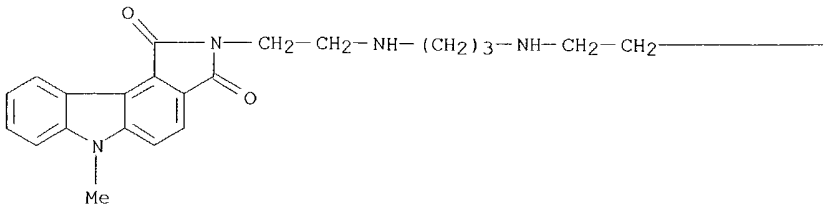


RN 202597-36-2 CAPLUS
CN Pyrrolo[3,4-c]carbazole-1,3(2H,6H)-dione, 6-methyl-2-[2-[[3-[[2-(5-nitro-1,3-dioxo-1H-benz[de]isoquinolin-2(3H)-yl)ethyl]amino]propyl]amino]ethyl]-, dimethanesulfonate (9CI) (CA INDEX NAME)

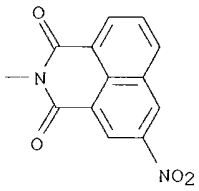
CM 1

CRN 202597-35-1
CMF C34 H30 N6 O6

PAGE 1-A

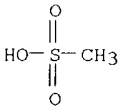


PAGE 1-B



CM 2

CRN 75-75-2
CMF C H4 O3 S



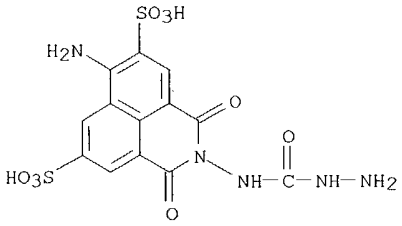
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:124168 CAPLUS
DN 128:235164
TI Anionic water-soluble polymers for introducing substances into cells, the method of introducing substances into cells, and absorbability-improved drugs containing them
IN Shimizu, Naoaki; Kawazoe, Yutaka; Atsuji, Minoru; Okada, Minoru
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10052262	A2	19980224	JP 1996-227885	19960809
PRAI	JP 1996-227885		19960809		

AB Substances are introduced into cells by contacting cells with aqueous solns. containing the substances and anionic water-soluble polymers. The substances may be anticancer agents such as neocarzinostatin and bleomycin (I), oligomeric DNA, genes, and enzymes. An aqueous solution containing Aronfloc A 119 {poly(acrylic acid) Na **salt**} (II) and I at 1 μg/mL each was mixed with L1210 murine leukemia cells in the logarithmic phase. The treated cells showed a growth rate of 2.1%, vs. 97.5%, for controls treated with a solution containing I but not containing II.
IT **67769-47-5**, Lucifer Yellow CH
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(anionic water-soluble polymers for introducing substances into cells and

absorbability-improved drugs containing them)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

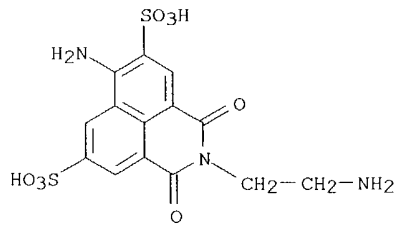


●2 Li

L12 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:341903 CAPLUS
DN 126:314513
TI Method for precipitating nucleic acid with visible carrier
IN McCormick, Mark R.
PA Novagen, Inc., USA
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9712994	A1	19970410	WO 1996-US15778	19961001
	W: CA, IL, JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 853680	A1	19980722	EP 1996-933224	19961001
	EP 853680	B1	20040331		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1995-4668P	P	19951002		
	WO 1996-US15778	W	19961001		

AB Glycogen, a suitable carrier mol. useful in a nucleic acid precipitation method, is modified by coupling with a fluorescent indicator mol. The conjugated glycogen facilitates nucleic acid precipitation because the presence and location of nucleic acid in a sample is readily observed and monitored.
IT **161578-11-6**, N-(2-Aminoethyl)-4-amino-3,6-disulfo-1,8-naphthalimide dipotassium **salt**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(precipitating nucleic acid with fluorescent glycogen conjugate)
RN 161578-11-6 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-(2-aminoethyl)-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)

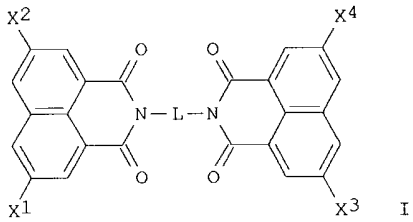


●2 K

L12 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:605539 CAPLUS
DN 125:247634
TI Preparation of 3-aromatic and 3-heteroaromatic substituted bisnaphthalimides as anticancer agents
IN Sun, Jung-Hui; Seitz, Steven P.
PA Du Pont Merck Pharmaceutical Company, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9625400	A2	19960822	WO 1996-US2335	19960214
	WO 9625400	A3	19961031		
	W: CA, JP, MX				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5641782	A	19970624	US 1995-389603	19950216
PRAI	US 1995-389603		19950216		

OS MARPAT 125:247634
GI



I

AB The title compds. [I; L = (alkyl substituted) CH2CH2NHCH2CH2NHCH2CH2, (CH2)mNH(CH2)p (wherein m = 1-3, p = 1-4); X1-X4 = H, NO2 aryl, heteroaryl] and their **salts**, useful in the treatment of solid tumor carcinomas in mammals, and, in particular, tumors of the breast and lung, were prepared and formulated. Thus, reaction of 3-(5-pyrimidinyl)-1,8-naphthalic anhydride with [R-(R*,R*)]-H2NCH(Me)CH2NH(CH2)2NHCH2CH(Me)NH2 in THF afforded 40% [R-(R*,R*)]-I.2MeSO3H [L = CH(Me)CH2NH(CH2)2NHCH2CHMe; X1, X3 = 5-pyrimidinyl; X2, X4 = H]. Compds. I that were tested in vitro in L1210 leukemia and Clone A colon carcinoma assays showed ID50 of < 0.9 μg/mL and of < 2.2 μg/mL, resp.

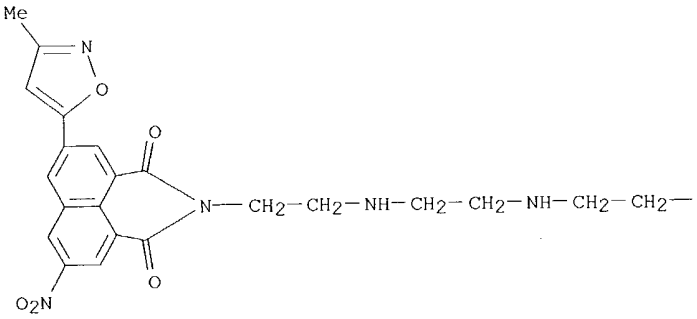
IT **181779-37-3P 181779-40-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-aromatic and 3-heteroarom. substituted bisnaphthalimides as anticancer agents)

RN 181779-37-3 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2,2'-[1,2-ethanediylbis(imino-2,1-ethanediyl)]bis[5-(3-methyl-5-isoxazolyl)-8-nitro-, dimethanesulfonate (9CI) (CA INDEX NAME)

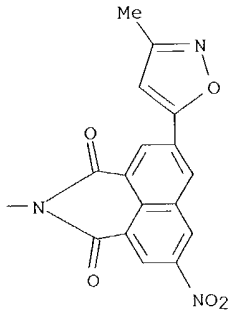
CM 1

CRN 181779-36-2
CMF C38 H30 N8 O10

PAGE 1-A

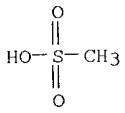


PAGE 1-B



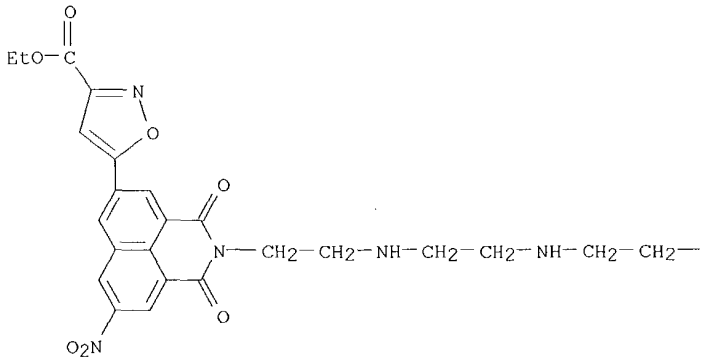
CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 181779-40-8 CAPLUS
CN 3-Isoxazolecarboxylic acid, 5,5'-[1,2-ethanediylbis[imino-2,1-ethanediyl(8-nitro-1,3-dioxo-1H-benz[de]isoquinoline-2,5(3H)-diyl)]]bis-, diethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



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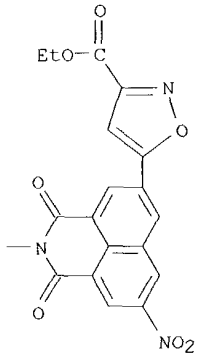
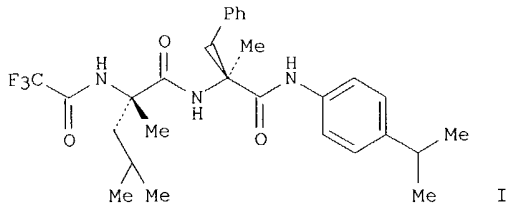


L12 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:713669 CAPLUS
DN 123:144634
TI Preparation of peptide analogs and other oxazolone (azlactone) derived materials.
IN Hogan, Joseph C., Jr.
PA Legomer Partners, L.P., USA
SO PCT Int. Appl., 134 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9400509	A1	19940106	WO 1993-US6240	19930630
	W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9346591	A1	19940124	AU 1993-46591	19930630
	AU 678168	B2	19970522		
	EP 649443	A1	19950426	EP 1993-916883	19930630
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 08500576	T2	19960123	JP 1993-502661	19930630
	BR 9306656	A	19981208	BR 1993-6656	19930630
PRAI	US 1992-906756		19920630		
	US 1993-41562		19930402		
	WO 1993-US6240		19930630		

GI



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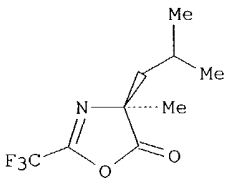
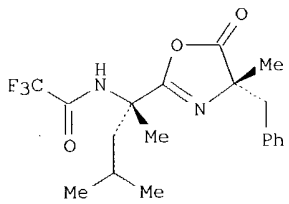


II



III

AB AX(NHCRR1COG)nYB [A, B = bond, H, electrophilic group, nucleophilic group, amino acid derivative, nucleotide derivative, carbohydrate derivative, organic structural motif, reporter element, organic moiety containing a polymerizable group, macromol. component, etc.; A and B are optionally connected to each other or to other structures; X, Y = bond, ≥1 C, N, S, O atom or combinations thereof; R, R1 = (substituted) alkyl, cycloalkyl, aralkyl, alkaryl, or heterocyclic derivs. thereof; G = connecting group, bond; n ≥1; with provisos], were prepared The new mols. and fabricated materials are mol. recognition agents useful in the design and synthesis of drugs, and have applications in sepns. and materials science. Thus, human elastase inhibitor (I) was prepared starting from (S)-2-methylleucine via azlactone intermediates (II) and (III).

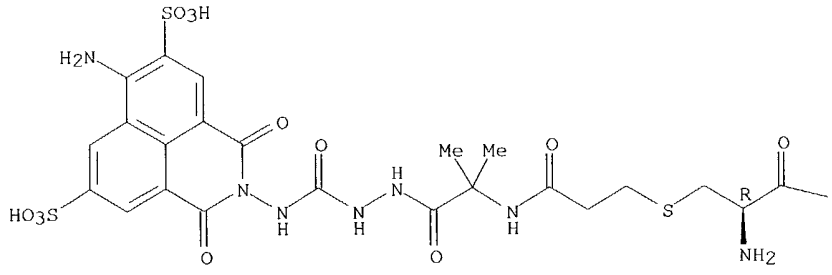
IT **165660-71-9P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(protein kinase ligand; preparation of oxazolone (azlactone) derived materials)

RN 165660-71-9 CAPLUS

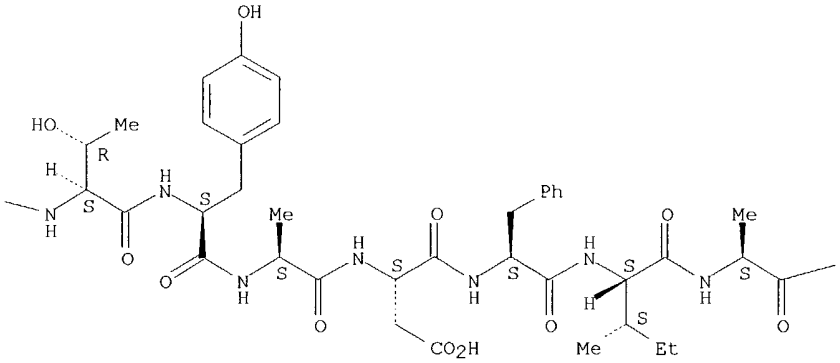
CN L-Aspartic acid, L-cysteinyl-L-threonyl-L-tyrosyl-L-alanyl-L-α-aspartyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-serylglycyl-L-arginyl-L-threonylglycyl-L-arginyl-L-arginyl-L-asparaginyl-L-alanyl-L-isoleucyl-L-histidyl-, thioether with N-(3-mercapto-1-oxopropyl)-2-methylalanine 2-[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazide, dilithium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

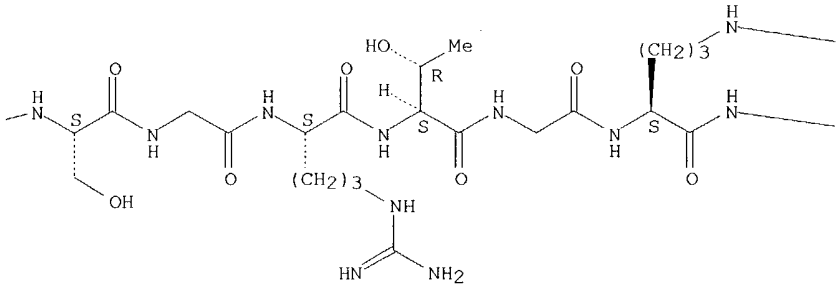
PAGE 1-A



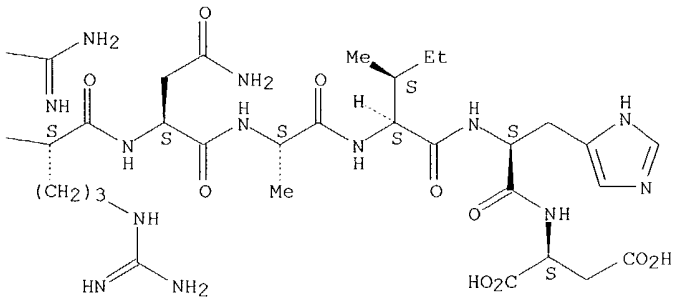
PAGE 1-B



PAGE 1-C



PAGE 1-D

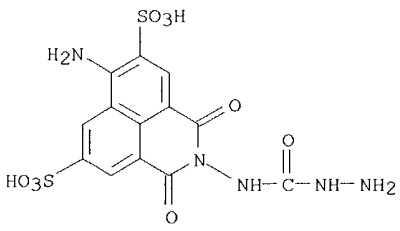


●2 Li

IT **67769-47-5,** Lucifer yellow ch
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of a ligand of protein kinase; preparation of oxazolone (azlactone) derived materials)

10690458

RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

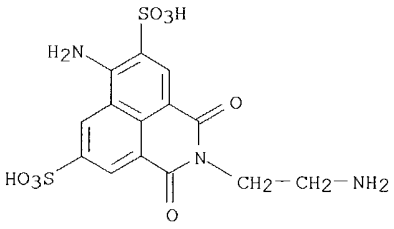


●2 Li

L12 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:420321 CAPLUS
DN 122:165263
TI Detecting sulfides in fluids such as petroleum or refinery process stream
IN Lessard, Ronald B.; Ramesh, Manian
PA Nalco Chemical Co., USA
SO Brit. UK Pat. Appl.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2277991	A1	19941116	GB 1994-8449	19940428
	US 5397708	A	19950314	US 1993-62413	19930513
	NO 9401655	A	19941114	NO 1994-1655	19940505
	CN 1104331	A	19950628	CN 1994-105738	19940512
PRAI	US 1993-62413		19930513		

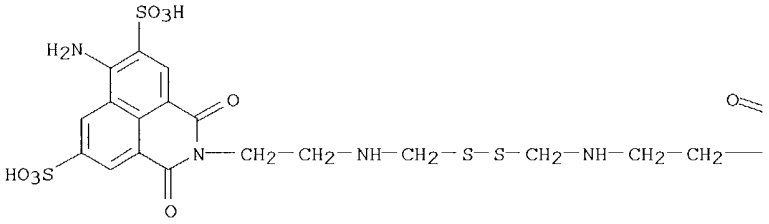
OS MARPAT 122:165263
AB Concentration of a sulfide in a fluid is obtained by adding a compound that changes its electronic properties on reaction with the sulfide then measuring the electronic properties of the fluid, e.g., fluorescence. Suitable compds. have the formula R-N-CH2-N-R', where R and R' are independently aromatic or heteroarom. residues; the compds. include N-(1-pyrene)maleimide, 7-diethylamino-3-(4'-maleimidylphenyl)-4-methylcoumarin, 4-acetamido-4'-maleimidylstilbne-2,2'-disulfonic acid disodium **salt**, Lucifer Yellow cadaverine, N-(2-aminoethyl)-4-amino-3,5-disulfo-1,8-naphthalimide dipotassium **salt**, 1-aminomethylpyrene hydrochloride, or ANTS. These compds. may also be sulfide scavengers; thus sulfide concns. in refinery process streams are easily measured to determine amts. of sulfide scavenger which need to be added.
IT **161578-11-6 161578-12-7 161578-13-8**
161578-14-9
RL: ARG (Analytical reagent use); NUU (Other use, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(detecting sulfides in fluids such as petroleum or refinery process streams using fluorescing or nonfluorescing sulfide scavengers)
RN 161578-11-6 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-(2-aminoethyl)-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

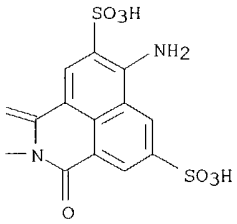
RN 161578-12-7 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 2,2'-[dithiobis(methyleneimino-2,1-ethanediyl)]bis[6-amino-2,3-dihydro-1,3-dioxo-, tetrapotassium salt (9CI) (CA INDEX NAME)

PAGE 1-A



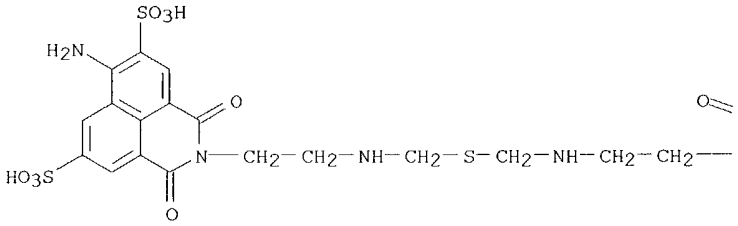
●4 K

PAGE 1-B



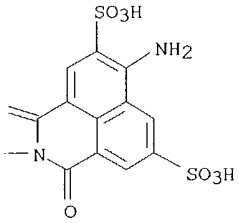
RN 161578-13-8 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 2,2'-[thiobis(methyleneimino-2,1-ethanediyl)]bis[6-amino-2,3-dihydro-1,3-dioxo-, tetrapotassium salt (9CI) (CA INDEX NAME)

PAGE 1-A

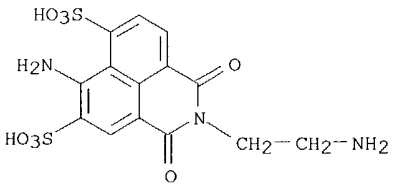


●4 K

PAGE 1-B



RN 161578-14-9 CAPLUS
CN 1H-Benz[de]isoquinoline-5,7-disulfonic acid, 6-amino-2-(2-aminoethyl)-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

L12 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:142985 CAPLUS
DN 118:142985
TI Analysis of carbohydrates and kits therefore
IN Jackson, Peter
PA Astroscan, Ltd., UK; Glyko, Inc.
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9302356	A1	19930204	WO 1991-US4555	19910722
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	EP 595806	A1	19940511	EP 1991-913717	19910722
	R: AT, BE, DE, DK, FR, GB, IT, LU, NL, SE				
	JP 06504363	T2	19940519	JP 1991-513054	19910722
PRAI	WO 1991-US4555		19910722		

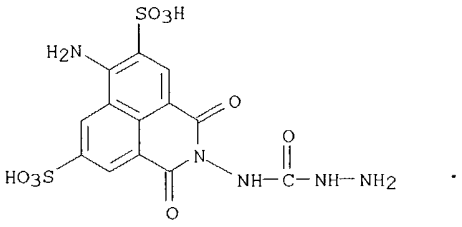
10690458

AB Carbohydrate substances are separated or distinguished by labeling with a reagent containing a hydrazide group to produce fluorescently labeled substances, applying the labeled substances to an electrophoretic gel, and running the gel to cause differential migration of the different substances. The preferred labeling reagent is Lucifer Yellow CH (I). A mixture of saccharides was labeled with I (as the di-K **salt**) in the presence of NaBH3CN, and the labeled sugars were subjected to PAGE. A figure of the resulting gel is included.

IT **67769-47-5,** Lucifer Yellow CH
RL: ANST (Analytical study)
(for carbohydrate labeling for electrophoresis)

RN 67769-47-5 CAPLUS

CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

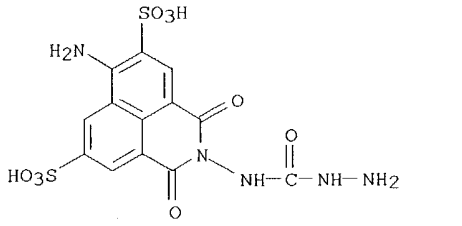


●2 Li

IT **71206-95-6**
RL: ANST (Analytical study)
(sugar labeling with, for electrophoresis)

RN 71206-95-6 CAPLUS

CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

L12 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:72332 CAPLUS

DN 114:72332

TI Photopolymerizable system with conductive polymer support

IN Naarmann, Herbert; Huemmer, Wolfgang

PA BASF A.-G., Germany

SO Ger. Offen., 8 pp.
CODEN: GWXXBX

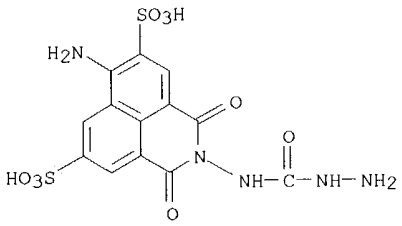
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3844451	A1	19900705	DE 1988-3844451	19881231
	EP 377190	A2	19900711	EP 1989-123878	19891223

EP 377190 A3 19911211
R: BE, DE, FR, GB, NL
PRAI DE 1988-3844451 19881231
AB The title photopolymerizable system comprises a photopolymerizable composition layer on a dimensionally stable support from a conductive polymer. The photopolymerizable composition contains a binder, ≥1 ethylenically unsatd. compds., photoinitiators, and optionally thermal polymerization inhibitors. The above system may have a strippable protective film. The above system may also contain a dye which is not reduced on irradiation with light and an elec. conductive polymer as a shielding component. The system can be used in printing plate manufacturing
IT **67769-47-5**
RL: USES (Uses)
(photoimaging system with conductive polymer support containing)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)



●2 Li

L12 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:88283 CAPLUS
DN 112:88283
TI Azo pigment-type electrophotographic photoreceptor
IN Ueda, Hideaki
PA Minolta Camera Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01178968	A2	19890717	JP 1987-334203	19871229
	JP 2556079	B2	19961120		
	US 4983480	A	19910108	US 1988-291208	19881228
PRAI	JP 1987-334203		19871229		

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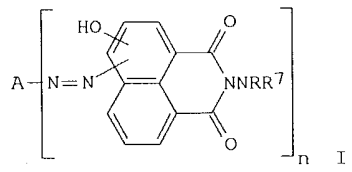


I

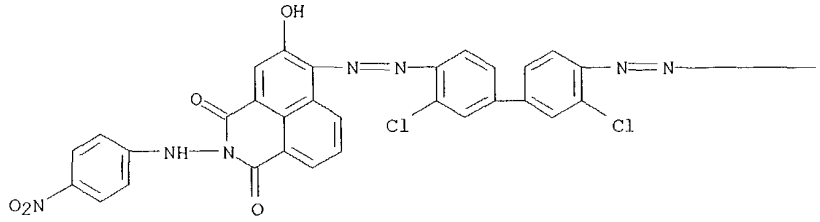
AB The electrophotog. photoreceptor has a photosensitive layer containing an azo pigment of the formula I (A = aromatic hydrocarbon or heterocycle, which may connect through bonding group; R, R1 = H, halo, (un)substituted alkyl, aralkyl, aryl, condensed polycycle, heterocycle, R, R1 may form a ring; n = 1-4). The photoreceptor shows high sensitivity. Thus, a photoreceptor was prepared by forming a charge-generating layer containing I [A = 4,4'-(3,3'-dichloro)biphenylene; R = H; R1 = 4-NO2C6H4] and polyester

resin on a support, and then forming a charge-transporting layer containing p-diphenylaminobenzaldehyde-N,N-diphenylhydrazone and polycarbonate. The photoreceptor was corona-discharged (-6.5 kV) and exposed to a 5 lx light source, showing exposure required to halve a potential of 3.5 lx-s.

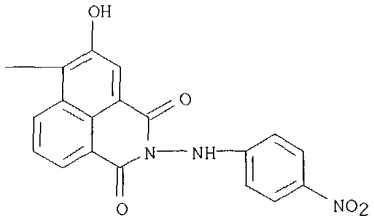
IT **125245-73-0 125245-74-1 125245-75-2**
125245-76-3 125245-77-4 125245-78-5
125245-81-0 125245-85-4 125245-86-5
RL: USES (Uses)
(pigment, electrophotog. photoreceptor photosensitive layer containing)

RN 125245-73-0 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-hydroxy-2-[(4-nitrophenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

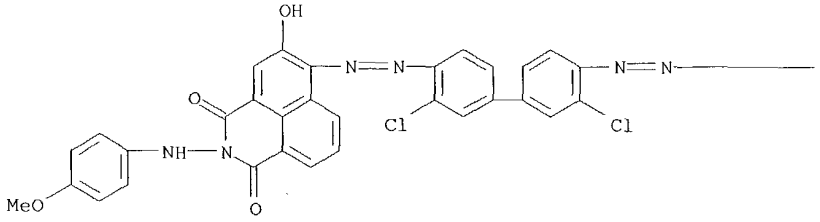


PAGE 1-B

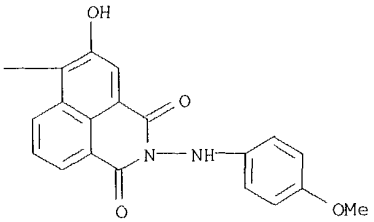


RN 125245-74-1 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-hydroxy-2-[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

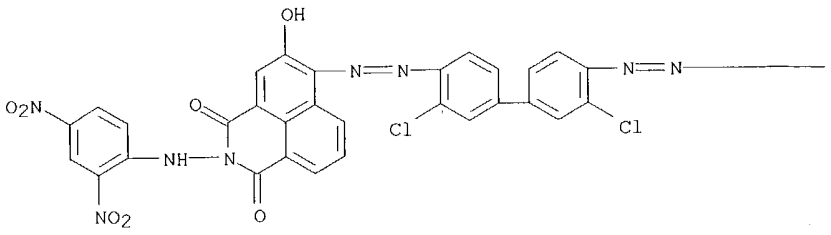


PAGE 1-B

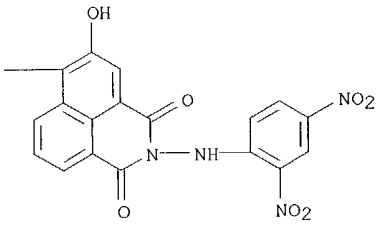


RN 125245-75-2 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2-[(2,4-dinitrophenyl)amino]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

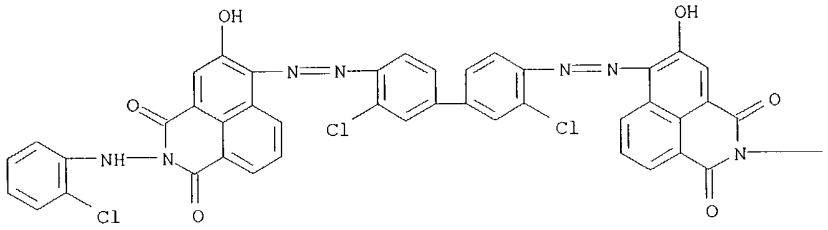


PAGE 1-B

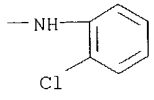


RN 125245-76-3 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2-[(2-chlorophenyl)amino]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

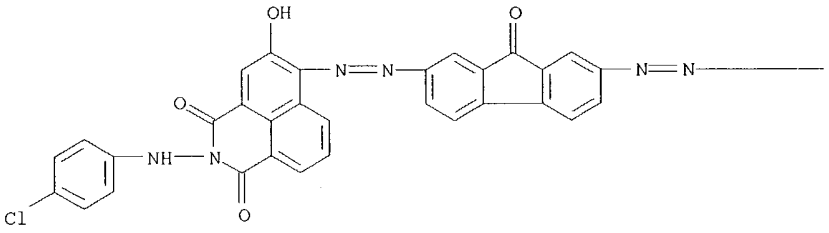


PAGE 1-B

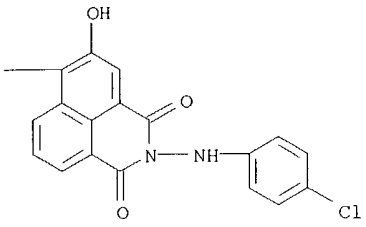


RN 125245-77-4 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(9-oxo-9H-fluorene-2,7-diyl)bis(azo)]bis[2-[(4-chlorophenyl)amino]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

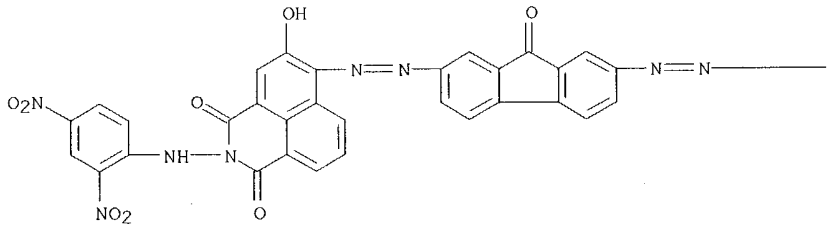


PAGE 1-B

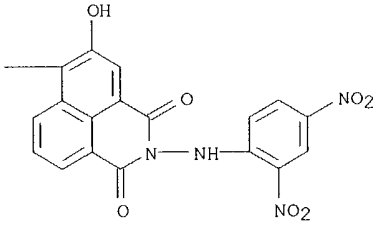


RN 125245-78-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[(9-oxo-9H-fluorene-2,7-diyl)bis(azo)]bis[2-[(2,4-dinitrophenyl)amino]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

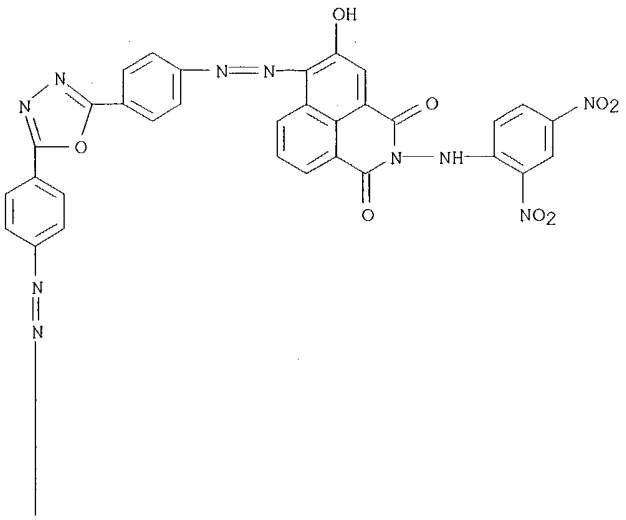


PAGE 1-B

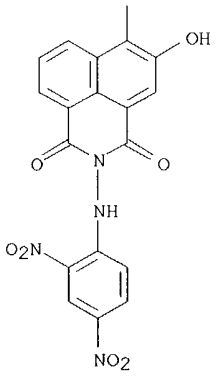


RN 125245-81-0 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[1,3,4-oxadiazole-2,5-diylbis(4,1-phenyleneazo)]bis[2-[(2,4-dinitrophenyl)amino]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

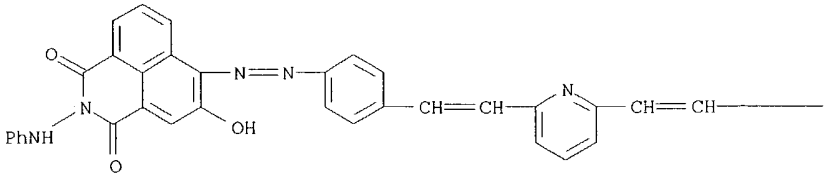


PAGE 2-A

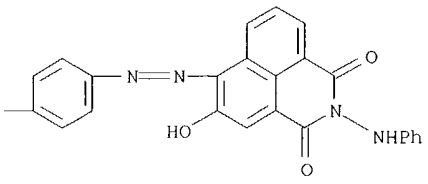


RN 125245-85-4 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[2,6-pyridinediylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[5-hydroxy-2-(phenylamino)- (9CI) (CA INDEX NAME)

PAGE 1-A

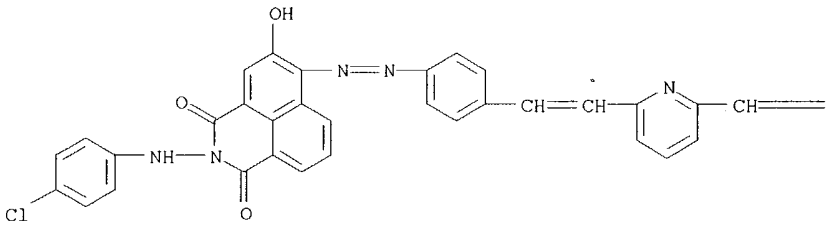


PAGE 1-B

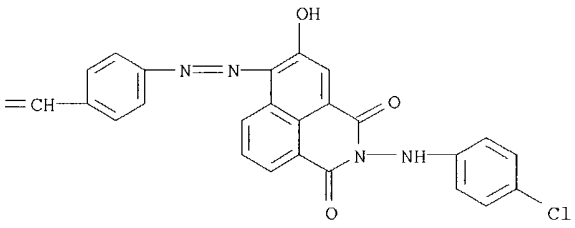


RN 125245-86-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6,6'-[2,6-pyridinediylbis(2,1-ethenediyl-4,1-phenyleneazo)]bis[2-[(4-chlorophenyl)amino]-5-hydroxy-(9CI) (CA INDEX NAME)

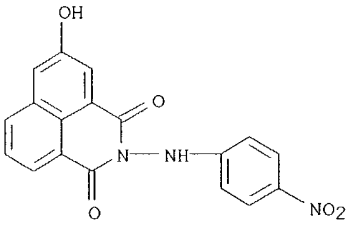
PAGE 1-A



PAGE 1-B



IT **125245-88-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diazonium **salt**)
RN 125245-88-7 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-hydroxy-2-[(4-nitrophenyl)amino]-(9CI) (CA INDEX NAME)



L12 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:29147 CAPLUS
DN 112:29147
TI Electrically conductive polymers from polyheterocycles with polychromatic counterions, their preparation, and their use
IN Naarmann, Herbert
PA BASF A.-G., Fed. Rep. Ger.

10690458

SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3743519	A1	19890706	DE 1987-3743519	19871222
PRAI DE 1987-3743519		19871222		

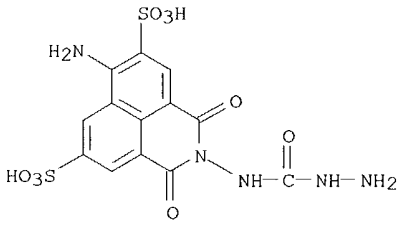
AB Elec. conductive homo- or copolymers of 5-membered heterocyclic compds. with a conjugated π-electron system and N, O, or S as heteroatoms contain anions of polychromic compds. as counterions. A solution containing pyrrole 5, MeCN 400, and the Li **salt** of Lucifer Yellow CH 2.5 parts was prepared and electrochem. polymerized between Ni electrodes 2 cm apart at 2 mA/cm2. An elastic film 45 μm thick was obtained, having conductivity 95 S/cm2, which changed color with changing pH and the wavelength of incident light. These materials are useful as sensors, conductors, and coatings.

IT **124447-41-2P 124447-42-3P**
RL: PREP (Preparation)
(preparation and use of elec. conductive)

RN 124447-41-2 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt, compd. with 1-methyl-1H-pyrrole homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 67769-47-5
CMF C13 H11 N5 O9 S2 . 2 Li



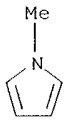
●2 Li

CM 2

CRN 72945-66-5
CMF (C5 H7 N)x
CCI PMS

CM 3

CRN 96-54-8
CMF C5 H7 N

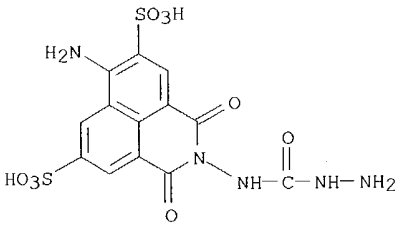


RN 124447-42-3 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt, compd. with 1H-pyrrole homopolymer (9CI) (CA INDEX NAME)

CM 1

10690458

CRN 67769-47-5
CMF C13 H11 N5 O9 S2 . 2 Li



●2 Li

CM 2

CRN 30604-81-0
CMF (C4 H5 N)x
CCI PMS

CM 3

CRN 109-97-7
CMF C4 H5 N

L12 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:94420 CAPLUS
DN 108:94420
TI New benz[de]isoquinoline-1,3-diones, their preparation, and their use as tumor inhibitors
IN Fernandez Brana, Miguel; Castellano Berlanga, Jose Maria; Schlick, Erich; Keilhauer, Gerhard
PA Knoll A.-G. Chemische Fabriken, Fed. Rep. Ger.
SO Ger. Offen., 3 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3614414	A1	19871105	DE 1986-3614414	19860429
	EP 243841	A1	19871104	EP 1987-105793	19870418
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 63022078	A2	19880129	JP 1987-102168	19870427
	DK 8702151	A	19871030	DK 1987-2151	19870428
	FI 8701850	A	19871030	FI 1987-1850	19870428
	NO 8701766	A	19871030	NO 1987-1766	19870428
	AU 8772125	A1	19871105	AU 1987-72125	19870428
	HU 44517	A2	19880328	HU 1987-1900	19870428
	ZA 8703007	A	19890125	ZA 1987-3007	19870428
PRAI	DE 1986-3614414		19860429		

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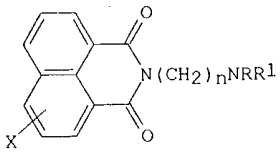


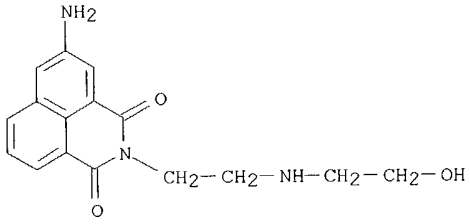
I

AB Benzisoquinolinediones I [X = HO, NO2, alkoxy, (di)(alkyl)amino, alkylcarbonylamino, alkoxycarbonylamine, alkyl, CF3, H, halo; n = 0-4; R = H, hydroxyalkyl; R1 = hydroxyalkyl, X ≠ 5-NO2 or H and n ≠ 2 when R = H and R1 = hydroxyethyl] and their **salts** with physiol. tolerable acids, useful as antitumor and antileukemia agents (no data), are prepared A mixture of 3-nitro-1,8-naphthalic acid and H2N(CH2)3N(CH2CH2OH)2 in EtOH was stirred for 5 h at room temperature to give 83% I (X = 5-NO2, n = 3, R = R1 = CH2CH2OH).

IT **112937-62-9P 112937-64-1P 112937-67-4P**
112937-68-5P 112937-69-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as tumor and leukemia inhibitor)

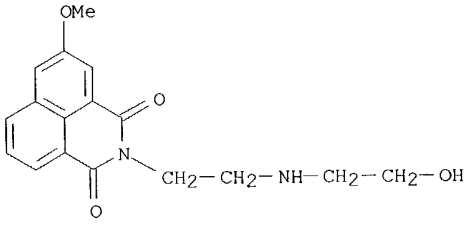
RN 112937-62-9 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-amino-2-[2-[(2-hydroxyethyl)amino]ethyl]- (9CI) (CA INDEX NAME)



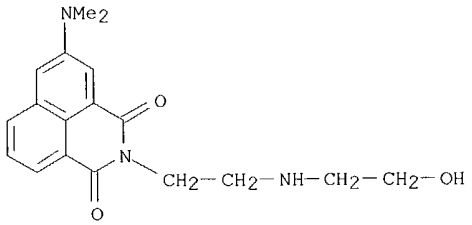
RN 112937-64-1 CAPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-[(2-hydroxyethyl)amino]ethyl]-5-methoxy- (9CI) (CA INDEX NAME)

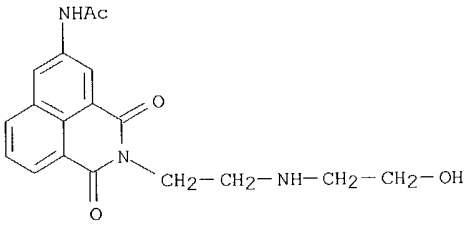


RN 112937-67-4 CAPLUS

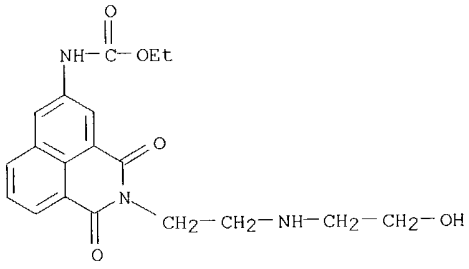
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-(dimethylamino)-2-[2-[(2-hydroxyethyl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 112937-68-5 CAPLUS
CN Acetamide, N-[2,3-dihydro-2-[2-[(2-hydroxyethyl)amino]ethyl]-1,3-dioxo-1H-benz[de]isoquinolin-5-yl]- (9CI) (CA INDEX NAME)



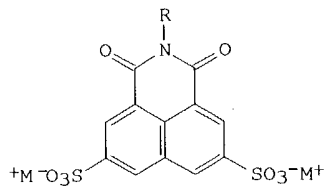
RN 112937-69-6 CAPLUS
CN Carbamic acid, [2,3-dihydro-2-[2-[(2-hydroxyethyl)amino]ethyl]-1,3-dioxo-1H-benz[de]isoquinolin-5-yl]-, ethyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1987:98993 CAPLUS
DN 106:98993
TI Fluorescent 4-amino-3,6-disulfonatonaphthalimide derivatives and their use in fluorescence-polarization immunoassays
IN Cittanova, Nicole; Desfosses, Bernard; Christeff, Nicolas; Rajkowski, Krzysztof
PA Centre National de la Recherche Scientifique, Fr.
SO Fr. Demande, 21 pp.
CODEN: FRXXBL
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2574184	A1	19860606	FR 1984-18311	19841130
	FR 2574184	B1	19880422		
	EP 187076	A1	19860709	EP 1985-402360	19851129
	EP 187076	B1	19910918		
	R: DE, FR, GB, NL				
PRAI	FR 1984-18311		19841130		

GI

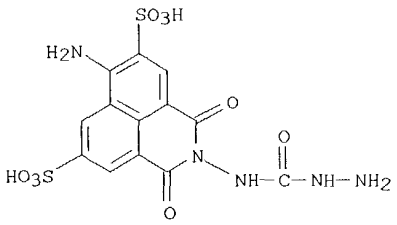


I

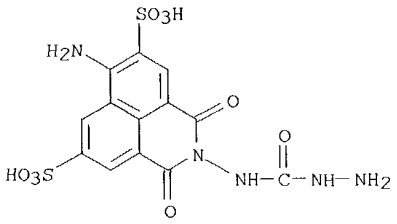
10690458

AB The water-soluble mol. I (M+ = cation, especially Li+; R = a group derived from a hapten or antigen) is a stable fluorescent label for use in title assays. The hapten or antigen may be attached through -NHCONHNH2 (II) or m-vinylsulfonylphenyl directly, or also through 1,7-diaminoheptane or cysteamine. Testosterone was labeled with 4-amino-N-(hydrazinocarbonylamino)-3,6-naphthalimide Li disulfonate. The fluorescent product was purified by TLC on silica gel and HPLC and used in a fluorescence-polarization immunoassay (incident light .apprx.425 nm; emission .apprx.540 nm). Less than 10 ng testosterone/mL was detected.

IT **107014-63-1D, salts**
RL: ANST (Analytical study)
(fluorescent reagent for labeling haptens and antigens for fluorescence polarization immunoassay)
RN 107014-63-1 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IT **67769-47-5D,** testosterone conjugates
RL: ANST (Analytical study)
(for fluorescence polarization immunoassay)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

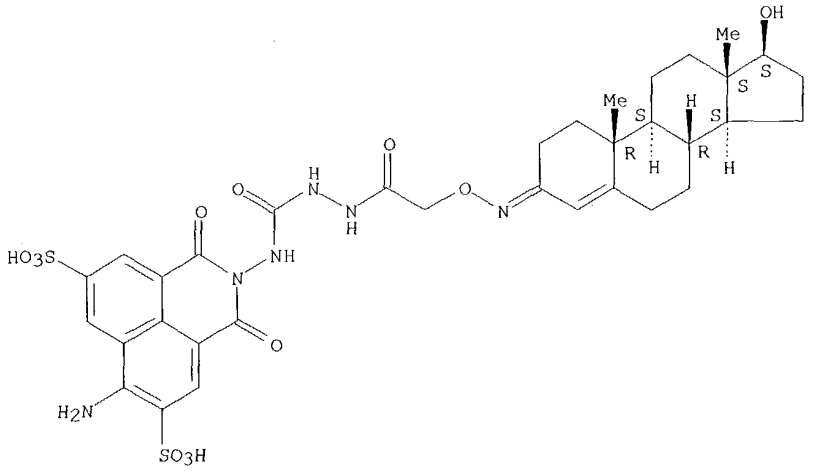


●2 Li

IT **106886-84-4P 107014-65-3P 107039-43-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for fluorescence polarization immunoassay)
RN 106886-84-4 CAPLUS
CN Acetic acid, [[[(17β)-17-hydroxyandrost-4-en-3-ylidene]amino]oxy]-, 2-[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazide, dilithium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



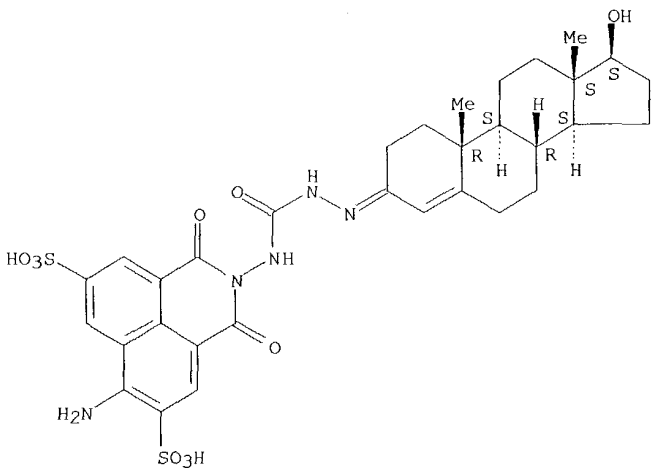
PAGE 2-A

●2 Li

RN 107014-65-3 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2,3-dihydro-2-[[[[(17β)-17-hydroxyandrost-4-en-3-ylidene]hydrazino]carbonyl]amino]-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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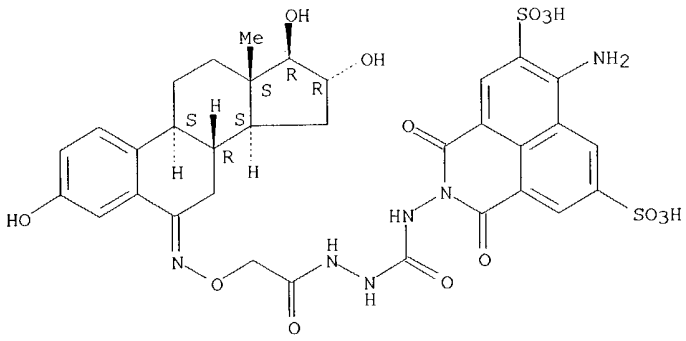
●2 Li

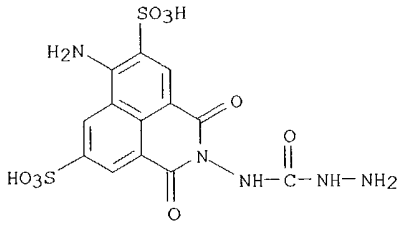
10690458

RN 107039-43-0 CAPLUS
CN Acetic acid, [[[(16α,17β)-3,16,17-trihydroxyestra-1,3,5(10)-trien-6-ylidene]amino]oxy]-, 2-[[(6-amino-1,3-dioxo-5,8-disulfo-1H-benz[de]isoquinolin-2(3H)-yl)amino]carbonyl]hydrazide (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



L12 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:591026 CAPLUS
DN 99:191026
TI Intracellular SITS injection dye-uncouples mammalian oligodendrocytes in culture
AU Kettenmann, H.; Orkand, R. K.
CS Dep. Neurobiol., Univ. Heidelberg, Heidelberg, D-6900, Fed. Rep. Ger.
SO Neuroscience Letters (1983), 39(1), 21-6
CODEN: NELED5; ISSN: 0304-3940
DT Journal
LA English
AB When the blue fluorescing dye SITS (4-acetamido-4'-isothiocyanato-stilbene-2,2'-disulfonic acid di-Na **salt**) is injected into 1 of a pair of elec. and dye-coupled oligodendrocytes, it does not cross the intercellular junctions but remains in the injected cell. Moreover, the fluorescent dye Lucifer Yellow CH, which normally crosses these intercellular junctions after injection, does not diffuse into a SITS-injected cell. Thus, intracellular SITS injection leads to dye uncoupling. SITS injection does not eliminate elec. coupling.
IT **67769-47-5**
RL: ANST (Analytical study)
(permeability to, of SITS-injected oligodendrocytes in culture)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)

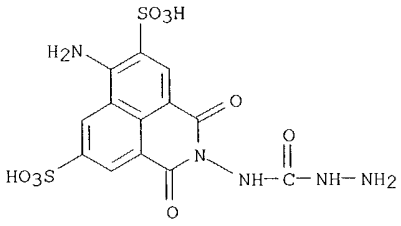


●2 Li

L12 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:418420 CAPLUS

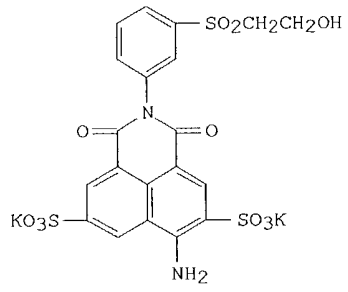
10690458

DN 99:18420
TI Kinetics of Lucifer yellow CH efflux in giant mitochondria
AU Bowman, Charles L.; Tedeschi, Henry
CS Dep. Biol. Sci., State Univ. New York, Albany, NY, 12222, USA
SO Biochimica et Biophysica Acta (1983), 731(2), 261-6
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB The fluorescent dye Lucifer yellow CH was microinjected electrophoretically into giant mitochondria isolated from mice maintained on a diet containing cuprizone. The dye was retained by the mitochondria, indicating that it was contained in a space bounded by a selectively permeable membrane. The labeling was reversible by reversing the polarity of the current. A study of the disappearance of the fluorescence indicates that the permeability of the mitochondrial membrane to the dye (probably the Li and (or) the K **salts**) ranges 10-7-10-8 cm/s.
IT **67769-47-5**
RL: BIOL (Biological study)
(mitochondria permeability to, in liver)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)



●2 Li

L12 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:619899 CAPLUS
DN 95:219899
TI Synthesis of 3,6-disulfonated 4-aminonaphthalimides
AU Stewart, Walter W.
CS Natl. Inst. Arthritis, Metab., Dig. Dis., Bethesda, MD, 20205, USA
SO Journal of the American Chemical Society (1981), 103(25), 7615-20
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
GI

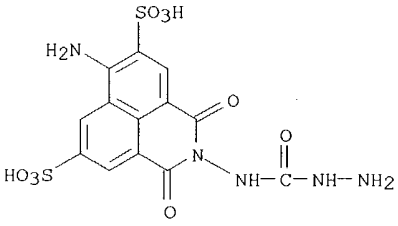


I

AB 3,6-Disulfonated 4-aminonaphthalimides (e.g. I) are stable, highly fluorescent, water-soluble compds. A general synthesis of these compds. is presented: a primary amine is condensed in aqueous acid with

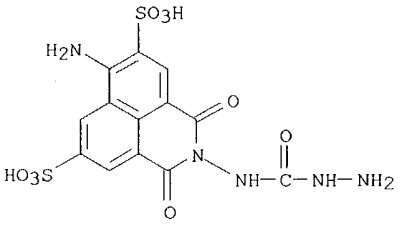
4-amino-3,6-disulfonaphthalic anhydride, and the product is isolated as its crystalline K, Na, or Li **salt**. The anhydride, whose preparation is described in detail, is interesting because it is stable indefinitely in boiling water and crystallizes readily when the solution is cooled. Because of their intense yellow-green fluorescence, solubility in water, and ability to be bound to cells and tissues, two of these 4-aminonaphthalimides have proved useful as biol. tracers, and their synthesis is described in detail.

IT **71206-95-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and lithium **salt** from)
RN 71206-95-6 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

IT **67769-47-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 67769-47-5 CAPLUS
CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dilithium salt (9CI) (CA INDEX NAME)



●2 Li

L12 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1979:519959 CAPLUS
DN 91:119959
TI Fluorescent dyes for intracellular labeling
IN Stewart, Walter W.
PA United States Dept. of Health, Education, and Welfare, USA
SO U. S. Pat. Appl., 19 pp. Avail. NTIS.
CODEN: XAXXAV
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 931273	A0	19790413	US 1978-931273	19780804
	US 4473693	A	19840925		

10690458

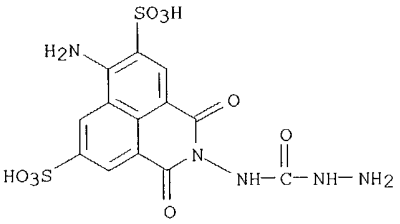
PRAI US 1978-931273 19780804

AB Fluorescent yellow dyes of the aminonaphthalimide type have shown superior activity in intracellular use in vivo in tissues such as turtle retina. These dyes condensed in marking of nerve cells. Injection of the dye Lucifer Yellow CH makes the neurons visible in the living state as well as in cleaned wholemounts. For example, brilliant sulfoflavine was sulfonated with 30% fuming H2SO4 (130°, 24 h) and the resulting tetrasulfonate was converted to the anhydride using 3% KOH at 50° for 10 min, followed by acidification. Carbohydrazide adduct from the anhydride was prepared by boiling the anhydride briefly in a solution of carbohydrazide in water. After the anhydride was completely dissolved, 290 KCl was added and the solution was cooled. The dipotassium **salt** was finally converted to Lucifer Yellow CH by passing the aqueous solution of dipotassium **salt** over Dowex resin in di-Li form. In an experiment with turtle retina, a remarkably high proportions of the cells in the turtle retina were dye coupled to other cells (spreading of the dye from injected cell to other cells).

IT **71206-95-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and Lucifer Yellow from)

RN 71206-95-6 CAPLUS

CN 1H-Benz[de]isoquinoline-5,8-disulfonic acid, 6-amino-2-[(hydrazinocarbonyl)amino]-2,3-dihydro-1,3-dioxo-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

L12 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1976:462845 CAPLUS

DN 85:62845

TI Aromatic o-hydroxy aldehydes

IN Papenfuhs, Theodor; Troester, Helmut

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger. Offen., 22 pp.
CODEN: GWXXBX

DT Patent

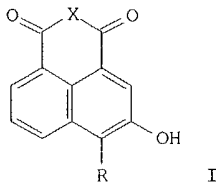
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2436032	A1	19760205	DE 1974-2436032	19740726
	DE 2436032	C2	19900613		
	US 4002630	A	19770111	US 1975-598070	19750722
	CH 616927	A	19800430	CH 1975-9645	19750723
	JP 51048642	A2	19760426	JP 1975-89698	19750724
	FR 2401131	A1	19790323	FR 1975-23279	19750725
	FR 2414045	A1	19790803	FR 1979-7268	19790322
	FR 2414045	B1	19810814		
PRAI	DE 1974-2436032		19740726		

GI

10690458

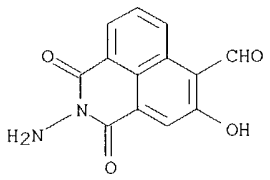


I

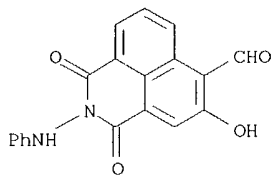
AB Naphthalic acid derivs I (X = O or R1N; R1 = NH2, cyclohexyl, benzothiazolyl, pyridyl, etc; R = CHO) or the reaction products of I (X = O) with o-(H2N)2C6H4 or 1,8-(H2N)2C10H6 were prepared by the reaction of I (R = H) with paraformaldehyde(II) and hexamethylenetetramine(III) in a **carboxylic** acid (AcOH, F3CCO2H, etc.). Thus, I (X = O, R = H) was heated with II, III, and glacial AcOH at 100° for 6 hr, followed by the addition of concentration HCl and heating for 2 hr to give 76.0% I (X = O, R = CHO).

IT **59673-75-5P 59841-79-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 59673-75-5 CAPLUS
CN 1H-Benz[de]isoquinoline-6-carboxaldehyde, 2-amino-2,3-dihydro-5-hydroxy-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 59841-79-1 CAPLUS
CN 1H-Benz[de]isoquinoline-6-carboxaldehyde, 2,3-dihydro-5-hydroxy-1,3-dioxo-2-(phenylamino)- (9CI) (CA INDEX NAME)



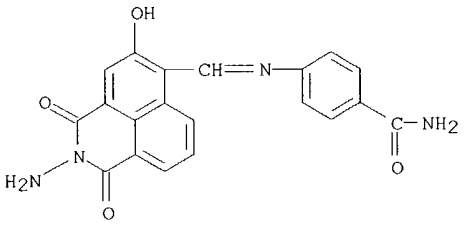
L12 ANSWER 23 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1976:448258 CAPLUS
DN 85:48258
TI Water-insoluble monoazomethine dyes
IN Papenfuhs, Theodor; Volk, Heinrich
PA Hoechst A.-G., Fed. Rep. Ger.
SO Ger. Offen., 56 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2446543	A1	19760415	DE 1974-2446543	19740928
PRAI	DE 1974-2446543		19740928		

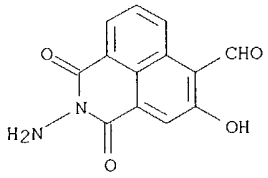
GI For diagram(s), see printed CA Issue.
AB Approx. 100 fast greenish yellow to bluish red monoazomethine pigments of general structure I and II were prepared, where X is O or substituted imino, R an aliphatic, aromatic, or heterocyclic group, optionally containing a metal complex-forming group, and A is an arylene or heterocyclic group. Many of

these compds. were subsequently treated with bivalent transition metal **salts** to give 1:1 (R a complex-forming group) or 2:1 complexes. For example, 4-formyl-3-hydroxy-1,8-naphthalic acid N-methylimide [59673-80-2] was heated with 5-amino-2-benzimidazolone [95-23-8] in AcOH at 90-100° to give brilliant yellowish-red pigment I (X = NMe, R = 2-benzimidazolon-5-yl) [59673-93-7]. Similarly, 3-hydroxy-4-formylnaphthoylenebenzimidazole [59674-76-9] and N-benzoyl-p-phenylenediamine [17625-83-1] in DMF gave bluish red II (A = o-C6H4, R = C6H4NHBz-4) [59673-94-8]. Copper complex III [59691-34-8] was prepared by treating an aqueous dispersion of the corresponding anil with CuSO4.

IT **59673-78-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(pigment, preparation of)
RN 59673-78-8 CAPLUS
CN Benzamide, 4-[[(2-amino-2,3-dihydro-5-hydroxy-1,3-dioxo-1H-benz[de]isoquinolin-6-yl)methylene]amino]- (9CI) (CA INDEX NAME)



IT **59673-75-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aminobenzamide)
RN 59673-75-5 CAPLUS
CN 1H-Benz[de]isoquinoline-6-carboxaldehyde, 2-amino-2,3-dihydro-5-hydroxy-1,3-dioxo- (9CI) (CA INDEX NAME)



L12 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1973:454870 CAPLUS
DN 79:54870
TI Azo dyes
IN Imahori, Seiichi; Kaneko, Masaharu; Kato, Yoshiaki
PA Mitsubishi Chemical Industries Co., Ltd.
SO Ger. Offen., 46 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

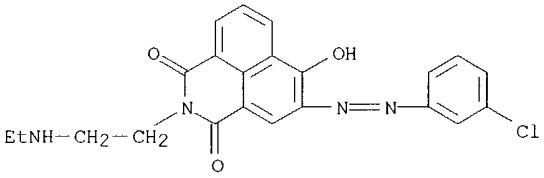
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2258545	A1	19730607	DE 1972-2258545	19721129
	DE 2258545	B2	19741031		
	DE 2258545	C3	19750619		
	JP 48060718	A2	19730825	JP 1971-97730	19711203
	JP 50006336	B4	19750313		
	FR 2162181	A1	19730713	FR 1972-42866	19721201
	GB 1384457	A	19750219	GB 1972-55645	19721201
PRAI	JP 1971-97730		19711203		

AB Disperse azo dyes (I, R , R2 = H, Cl, Br,NO2; R2 = alkyl, substituted alkyl, cyclohexyl, PhCH2, Ph and substituted Ph; R3 = substituted phenyl) and cationic azo dyer (I, R2 = quaternary ammonium alkyl) were prepared and were used dye resp. polyester and polyacrylonitrile fibers fast orange to

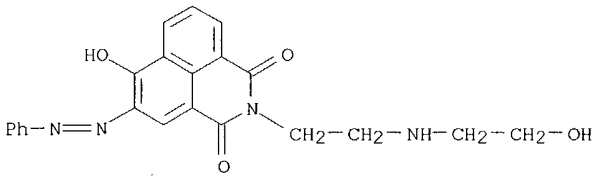
scarlet shades. Thus, PhNH2 was diazotized and coupled with N-methyl-4-hydroxynaphthalimide to give azo dye I (R = R1 = H, R2 = Me, R3 = Ph) [41544-36-9], clear light- and sublimation-fast scarlet-red on polyester. Cationic azo dye (I[R = R1 = H, R2 = (CH2)3N+Me3 (chloride), R3 = p-C6H4Cl] [41562-34-9] was prepared by coupling diazotized p-ClC6H4NH2 with N-[3-(trimethylammonium)propyl]-4-hydroxynaphthalimide (MeSO4-**salt**) (in neutral or slightly alkaline medium) followed by **salting** and was used to dye polyacrylonitrile fibers a fast clear orange shade. Similarly 200 other I were prepared

IT **42358-65-6P 42358-66-7P 42358-67-8P**
42359-28-4P 42359-29-5P 42359-30-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

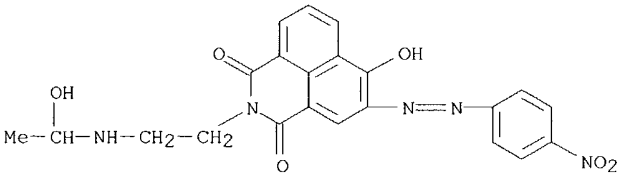
RN 42358-65-6 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-[(3-chlorophenyl)azo]-2-[2-(ethylamino)ethyl]-6-hydroxy- (9CI) (CA INDEX NAME)



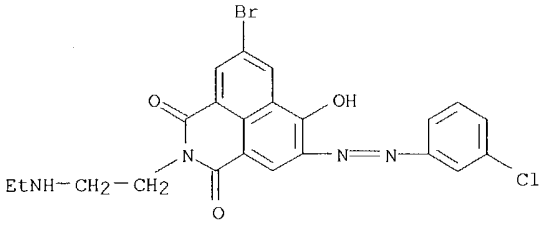
RN 42358-66-7 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-hydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]-5-(phenylazo)- (9CI) (CA INDEX NAME)



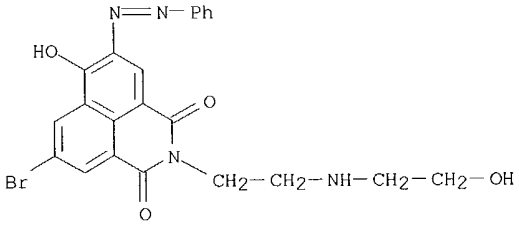
RN 42358-67-8 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 6-hydroxy-2-[2-[(1-hydroxyethyl)amino]ethyl]-5-[(4-nitrophenyl)azo]- (9CI) (CA INDEX NAME)



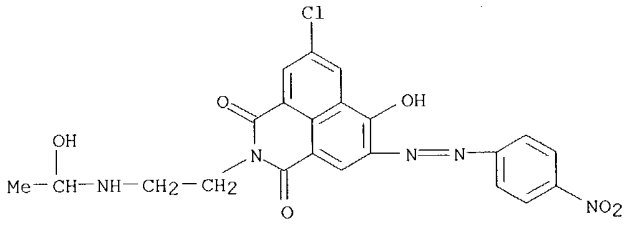
RN 42359-28-4 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 8-bromo-5-[(3-chlorophenyl)azo]-2-[2-(ethylamino)ethyl]-6-hydroxy- (9CI) (CA INDEX NAME)



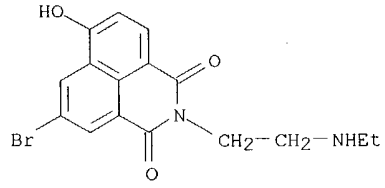
RN 42359-29-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 8-bromo-6-hydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]-5-(phenylazo)- (9CI) (CA INDEX NAME)



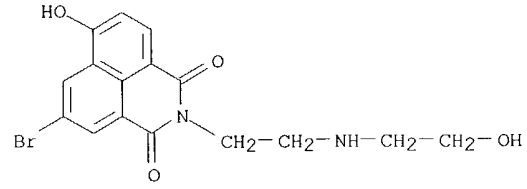
RN 42359-30-8 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 8-chloro-6-hydroxy-2-[2-[(1-hydroxyethyl)amino]ethyl]-5-[(4-nitrophenyl)azo]- (9CI) (CA INDEX NAME)



IT **42360-06-5 42360-07-6 42360-08-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diazotized amines)
RN 42360-06-5 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-bromo-2-[2-(ethylamino)ethyl]-7-hydroxy- (9CI) (CA INDEX NAME)



RN 42360-07-6 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-bromo-7-hydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]- (9CI) (CA INDEX NAME)



RN 42360-08-7 CAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 5-chloro-7-hydroxy-2-[2-[(1-hydroxyethyl)amino]ethyl]- (9CI) (CA INDEX NAME)

10690458